PERIODICAL DEPARTMENT

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THE COBBLER

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. I. SAN FRANCISCO, CALIFORNIA, MAY, 1900. NO. 1.

The Tale of a Kodak

By A. J. Waterhouse

PHOTOGRAPHS BY DR. POWER

I have heard a tale — but I know not where —
Of a youth who wandered long and far,
Where the fields of life were green or bare,
From the morning star to the evening star,
In search of a vision, a dream of grace,
The shadowy charm of an unseen face;
And ever and ever the phantom did flee —
But here is the tale as it came to me.

The landscape lay like a dream divine,
And a summer breeze was creeping
O'er the fields, with gold of the sun ashine,
And the air was rare as an old, old wine.
Said the youth, "The morning, with all its gold,
Shall my camera seize and the charm shall hold
Of the world in the sunlight sleeping."

Then a sunbeam crept through the lens to trace
In letters of light the glory
Of fields and rivers, the morning's grace;
To seize and to hold in a kodak's space
The beauty that glimmers o'er mountain and lea,
That dreams in the sunlight asleep on the sea,
And it caught — but that is the story.

A maiden slept in the meadow where
The sunbeam caught her sleeping.
Oh, fair was she as the morn was fair,
And the sunbeam laughed to find her there;
And the youth first looked on her pictured face—
It was only a shadow, a dream of grace—
And he said, "A tryst she's keeping.

"She is waiting for me, my love unknown;
She waiteth for me, unknowing,
And I shall go to her, my sweet, my own,
And either shall live for the other alone.
Ah, surely I'll find her some day, some day
And we will go sailing away, away,
Where breezes of heaven are blowing."

He sought her far and he sought her near,
But vain was the long endeavor,
For morn dropped down to the even drear,
And the phantom of hope was turned to fear.
But still he cried, as the sun sank low,
"Though into the shadows my feet must go,
She waiteth beyond the river."

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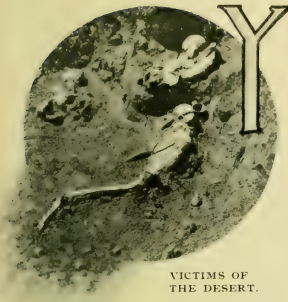
So runneth the story; but let it pass,
For the tale is common to one and all.
We follow some shadow through life, alas!
And find, at the last, that it holds us thrall.
We follow a vision, a dream of grace,
A hope that beckons but hides its face;
And ever and ever at the last we say,
"I shall find my hope in another day."

"AS THE SUN SANK LOW."

PHOTOGRAPHING UNDER DIFFICULTIES.

By Frederick I. Monsen.
Illustrated from Photographs by the Writer.



VICTIMS OF THE DESERT.

YOU who have lived in the good old wet plate times are familiar with the difficulties which beset the photographer in days gone by. We all remember when the appearance of a photographer setting up his camera on a street corner aroused as much interest and collected as great a crowd as the war bulletins do now. However, the cumbersome apparatus, the complex, intricate and unlimited articles indispensable in the production of a negative, the nicety of calculation and the great care required induced far better average results than are produced today, even by the professional. I remember well my first outfit. It was a marvel of lightness and compactness. It was small enough and light enough (eighty pounds) to pack into a handcart, and it required only thirty minutes to "set up" and get a plate ready for the camera. It was before the days of "push the button." You had to push the cart.

Those were times of difficulty. A thousand and one hidden dangers menaced the old wet plate photographer. Think of coating plates in Arizona with the thermometer standing at 140 degrees in the shade, as Watkins did in the early seventies. And speaking of Watkins, what a great work he did for California! He was the first to photograph the grand Yosemite valley and the colossal sequoias, and it was through the medium of his beautiful pictures that the world first became familiar with California's wonderland.

It was my privilege to see some of Mr. C. E. Watkins' wet plate negatives recently and I marveled at their beauty. Made during the later sixties, they are as perfect now as when they were developed. The difficulties with which Mr. Watkins had to contend will never be known.

In later years, one of the most remarkable and difficult photographic undertakings successfully carried out was the Stanton Railway survey of the canyons of the Colorado river.

In the spring of 1889, Mr. Robert Brewster Stanton, C. E., and Mr. Frank M. Brown, together with a party of four men, left Denver, Col., for Green River Station, Utah, where there had been gathered the necessary outfit of boats and supplies for the trip down the river. While outfitting, the question arose how most effectually to do the work so as to clearly present the results not only to engineers, but to capitalists and possible investors, as up to that time the canyons of the Colorado river had been considered not only impracticable, but even impossible, for railroad purposes, on account of the supposed perpendicularity of the walls. It was therefore decided to add a photographer to the expedition with such instruments and supplies as were deemed necessary. This expedition met with innumerable hardships, culminating in the death by

FUNERAL MOUNTAIN IN DEATH VALLEY
SHOWING ALL THAT REMAINS OF AN OUTFIT BELONGING TO A PARTY THAT PERISHED IN 1850.

drowning of Mr. Brown and two of the boatmen while running a rapid in the Marble canyon. Nothing now remained but to go back to Denver as best they could. This they did by climbing the canyon walls, and, after great suffering, reached a Mormon settlement, almost dead from starvation, thirst and the hardships endured. The following year Mr. Stanton, with commendable grit, immediately set about preparing for a second expedition.

Profiting by the sad experiences of the summer before, the new outfit was vastly different from the first, and much more satisfactory. Three boats were taken, built entirely of oak, 22 feet long with 4½ foot beam, and each supplied with ten air-tight compartments of galvanized iron, which made it impossible to upset them even in the roughest water.

All provisions, clothing and supplies were packed in heavy rubber bags made expressly for this expedition. The new photographic outfit consisted of two 6^2 x 8^2 cameras, one 4 x 5 hand-box and 2000 films in rolls with extra roll holders. Each roll of films was soldered up in a tin box, and these were packed in the rubber bags. As each film was exposed, it was again soldered up in the tin boxes, and the duplicates carried in separate boats. The second expedition was completely successful in every way, the journey to the gulf being accomplished without disastrous mishaps. The expedition embarked December 10th, and emerged at the lower end of the Grand canyon March 17th; reaching the end of the survey at tide-water below Yuma April 26th. One boat was

completely destroyed in the rapids, but only two sacks of provisions were lost on the entire journey.

Thus had the two expeditions, considered as one, traveled a distance of 1400 miles; had passed over—running nearly all of them—520 rapids, falls and cataracts in less than 500 miles, making a total fall of 4500 feet, and had gone successfully through the dark canyons of one of the most tempestuous rivers of the world.

About 2200 negatives were taken in all, most of them in duplicate and some in triplicate. Nearly 1000 views were secured illustrative of the route and covering the line so that with the notes of distances and classification, engineers familiar with rough mountain construction were enabled to make as correct an approximate estimate of the cost of such a road as were those who accompanied the expeditions.

While photography has been used in many ways to illustrate engineering works, never before had the camera taken so active and important a part in making a preliminary railway survey and exploration through an almost unknown land. This exploration was the first journey made down the mysterious river since that memorable one of Major J. W. Powell, twenty years before.

Two hundred miles westward from where the Colorado river has chiseled its deepest gorges, lies the lowest depression on this continent and the hottest and most arid locality as well. Death valley, in the Mojave desert, California, was, until a few years ago, as great a mystery as the river that Stanton

UNKNOWN GRAVES.

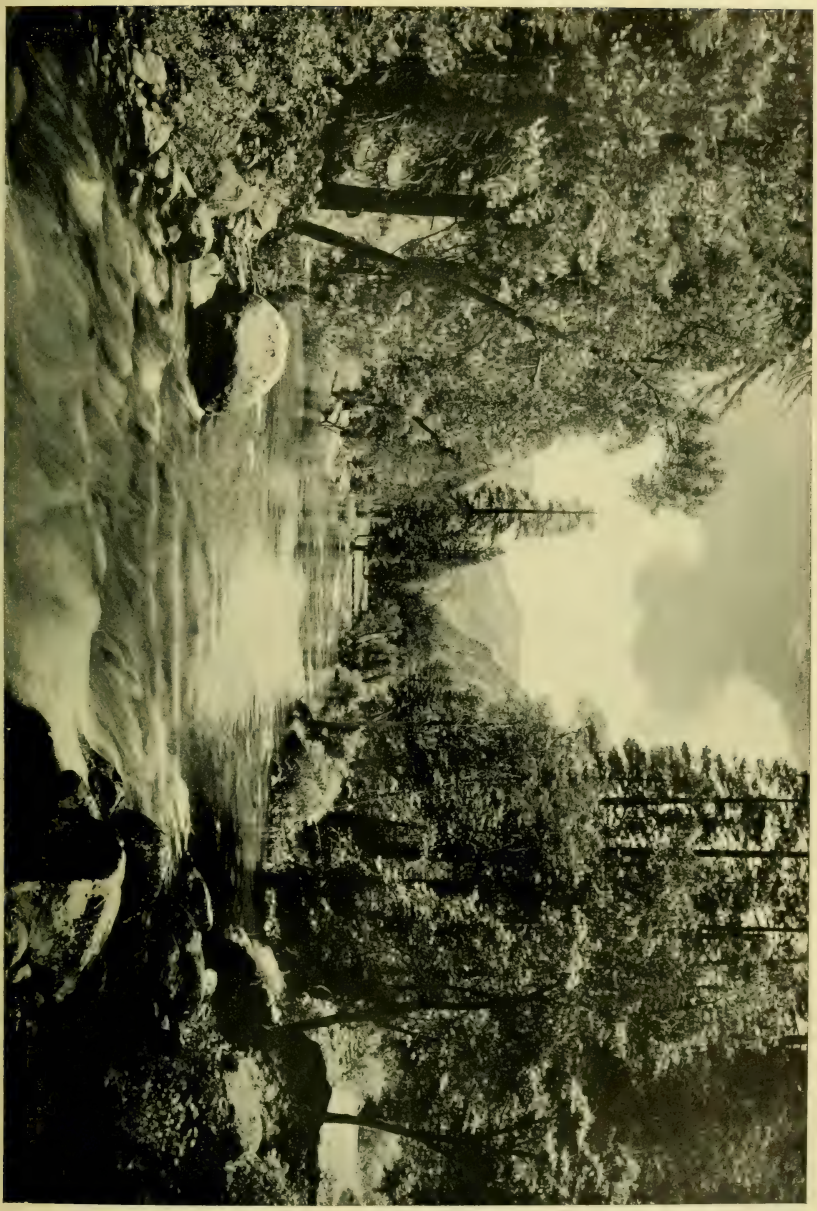
surveyed. After several years of desert experience and life, I determined to make a trip through the Mojave desert and into Death valley, the object being to secure photographs and sketches. At Daggett, on the Santa Fe Pacific railway, I secured a well-seasoned buckboard and two strong horses accustomed to desert travel. My dry plates were carefully packed in soldered tin cases containing six dozen 8 x 10 plates each. This precaution was absolutely necessary, as the fine alkali dust penetrating the paper plate boxes and settling on the plates caused thousands of pinholes in the film.

By the Amargosa route, it is nine days' journey from Daggett to Death valley, and on this entire distance there are but three springs or water holes, two of them over sixty miles apart. Great care had to be exercised in traveling over these dreary wastes, for in case of accident there was no hope, and if lost on the desert, or if any of the water holes on the way were dried up, a frequent condition, the traveler would perish. On the trail we passed many nameless graves of unfortunates who had attempted the invasion of this inhospitable domain, and occasionally bleaching skeletons pointed out with grewsome clearness the tragedies of the plains, the frightful danger besetting the venturesome explorer.

The atmosphere of the desert is so clear, owing to the great heat and absence of moisture, that distances become as naught, and I have frequently traveled all day to reach the mountains which appeared to be but a few miles away. The action of sunlight through an atmosphere so pure and free from humidity and organic disturbances is singularly brilliant and dazzling. It did not take long for me to discover that less than one-half the normal exposure was necessary on the desert. Because of this clearness and transparency of the atmosphere, I found single combination objectives of great service, some of my photographs showing a distance of seventy-five miles.

My desert dark-room was a very simple affair. I dug a hole in the sand, and jumping into it, covered myself with a blanket, used my head as a tent pole, and placing my plates and plate-holders on the rim of the hole, worked in the dark. I found it practical, but a trifle tropical.

It was, of course, impossible to do any developing on the desert, so my plates, after exposure, were carefully repacked and soldered up in the original tin cases. Of the three cameras I carried, two fell apart in the extreme heat, not having been made of seasoned wood. It was more than four months from the time the first exposures were made before the plates were developed, and I attribute my success to the great care used in packing, color sensitive plates and single lenses. The extreme heat did not affect my plates except in the case of the orthochromatics, which showed a tendency to fog gradually from edge to center, but not enough to ruin the plates. My plates were fully timed and many badly over-exposed, but I managed to control and save them all by using a hydroquinone developer rich in bromide of potassium. In this manner I succeeded in getting 353 good negatives out of 390 plates exposed.



A PACIFIC LEAGUE OF CAMERA CLUBS.

By James W. Erwin, President California Camera Club.

The camera clubs of the Pacific Coast have, during the past few years, contributed much to the growing popularity of the great West. They have presented to other portions of the United States and to many European countries the claims of California upon those who seek the delights of a balmy climate and the wonders of nature.

The California Camera Club has annually, for the past ten years, sent to the American Lantern Slide Interchange, of which it is a member, a collection of slides, each subject bespeaking for itself the wonders and glories of California and the West. These slides have been exhibited in every city of prominence in the country and in many of the chief centers of Europe. Through them the attractiveness of California has been presented as it could not have been by any other means.

The recent growth of amateur photography in the West, resulting in the formation of numerous camera clubs, has presented to many the idea of a league of clubs, a union of interests. The organization of a large camera club in Los Angeles, recently, has strengthened this idea. It is obvious that an arrangement whereby an interchange of slides and prints could regularly be effected, would not only awaken renewed interest, but serve as an incentive to better effort by creating a friendly rivalry.

It does not follow, by any means, that the largest organization can obtain the best and most artistic results. The smallest club has quite as good a chance, as successful photography is, for the most part, due to individual effort and excellence.

The benefits of such an organization are manifold. The usefulness of the California clubs would be greatly augmented, and jointly they could do more to advance the interests of California than in their individual capacity. Each club would endeavor to portray the scenic features of its particular section. Let these efforts be combined, and the result would portray the whole of California as has never been done before. Thus will the association of clubs assist in the material welfare of the state and the Pacific Coast.

The social possibilities of a permanent league of clubs is unlimited. The exchange of ideas and methods resultant thereto cannot but be of benefit to all concerned. Let each club, for instance, require the preparation of a monthly paper on some subject to be announced by the league officers. After these have been submitted to their respective "home clubs," let there be a general interchange of the papers. Unquestionably, each writer would advance some new and original ideas, and the study of the papers would afford all interested both pleasure and profit.

The interchange of sets of prints to adorn, for a certain period, the walls of the respective clubrooms, would likewise bring pleasure, and undoubtedly many would profit thereby.

The writer is glad of this opportunity of offering this suggestion. He has no well-defined plan as to the proper course to pursue, but would be pleased to

see further discussion looking toward a culmination of the idea. Following is a list of the camera clubs available for the league:

Oregon Camera Club, Portland; Sacramento Camera Club, Sacramento; Los Angeles Camera Club, Los Angeles; Tacoma Camera Club, Tacoma; Pendleton Camera Club, Pendleton, Or.; Vacaville Camera Club, Vacaville; Redlands Camera Club, Redlands; Santa Cruz Camera Club, Santa Cruz; Watsonville Camera Club, Watsonville; Photographic Art Association, San Francisco; Alameda Camera Club, Alameda; California Camera Club, San Francisco.

SEARCHING FOR UNKNOWN INDIANS.

By Carl E. Ackerman.

The recent announcement made by President Wheeler to the Board of Regents of the State University to the effect that Mrs. Phœbe A. Hearst had decided to form an Archæological Museum for the university, is of particular interest to us, for the reason that this Coast, especially California and Mexico, is to be carefully explored. Little or no scientific archæologic work has been done in California, and that little has been fragmentary and very limited in its scope. A few special expeditions have been sent to California by the Smithsonian Institution and the Peabody Museum, but most of their efforts have been directed to the Santa Barbara section and the islands off the coast. The present work is in charge of Dr. Philip Mills Jones, for some years connected with the medical department of the university, and will cover a period of several years. Dr. Jones will not be handicapped for want of an outfit or the necessary funds. He has been allowed *carte blanche*, and has spent several months in selecting his material. He will leave with a party about the middle of July, to be in the field for six or eight months. The party will be well equipped with scientific, surveying and photographic apparatus, and camp material. The photographic apparatus is particularly complete, and such as to insure valuable results. The route to be followed will be from this city, along the coast into Monterey county, and through the Monterey mountains.

It is here that the most important discoveries are anticipated. Dr. Jones has received information to the effect that a large tribe of Indians are still living in the heart of the mountains, retaining all of their primitive customs and practically unknown to the outside world. After all possible information as to the Indians has been gathered, the party will move into San Luis Obispo and Santa Barbara counties. All archæological and ethnological material encountered will be shipped to the city for the University museum.

An interesting feature of the photographic outfit is the tele-photo attachment. This, in connection with the Zeiss convertible lens, gives a marvelous range of foci. Some of the results to be obtained with the tele-photo attachment are startling. It is a device not always necessary, but certainly essential for the work to be done.

OUTDOOR PORTRAITURE.

By E. L. Gifford,
With Photographs by the Writer.

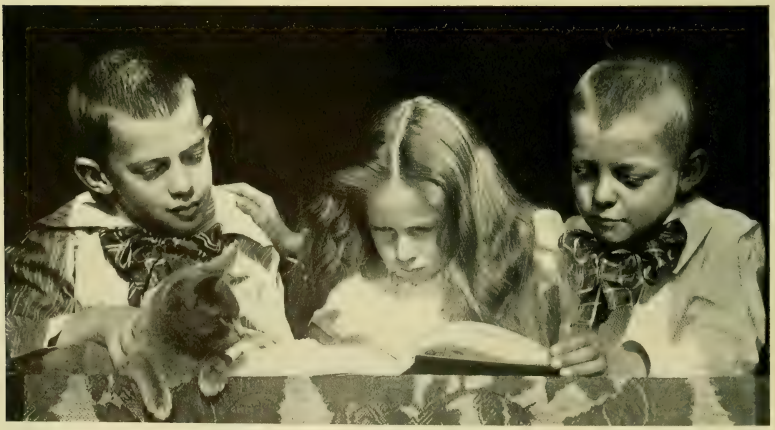
No. 1.

UNDER this head may be included children and other small animals, dogs and adults, floral studies and still life in general.

How to photograph them without a skylight or any of the professional photographers' outfit puzzles many an amateur photographer. However, the writer has, after many failures and experiments, arrived at the conclusion that the essentials to success are: *first*, a modicum of common sense; *second*, a doorway facing the sun and opening into a dark interior, and, *third*, a good camera.

For this work, the writer has a basement, the three windows of which are darkened for the purpose, and a doorway facing the south. The victims are posed in this doorway in the full light. The first subject posed in the doorway was the kitten. If the reader has ever tried to snap a kitten, it is sufficient to say that it was a kitten. The rest he will understand. The snap was made at noon in the middle of October, with bright though not intense light. The plate used was Seed's non-halation, and the exposure a quarter of a second at f/8 Universal system. Much patience was needed to keep the kitten in subjection until the exposure was made, but it was finally accomplished with the loss of one plate and some temper.

Picture No. 2 was made a week later, with a little less light, the sky



NO. 2—INTERESTED.

being slightly overcast. The same kind of plate was used, but the exposure was one-half second at f/8.

No. 3 was made the day before Christmas, at two o'clock. The exposure was one second.

With the pear blossoms, No. 4, the experience was not pleasant. As detail was the desideratum, the smallest stop was used, f/256. The time was 3 P. M., March 25th, the light being very bright. As halation was anticipated, a Seed's non-halation plate was used, and an exposure of ten seconds determined upon. Everything being ready, the slide was drawn, and the bulb squeezed; ten seconds were counted, the bulb squeezed again, and — the shutter refused to close. The maker's name is not given, out of consideration for his feelings. Fully five seconds more elapsed before the cap was put on.

Believing that the plate was ruined, and having no more non-halation plates, a Cramer crown was used. An exposure of three seconds was given, with the expectation of a badly halated plate from the mass of white bloom. However, the print, which has lost much by reproduction, shows that the negative is a beauty, with no halation, and perfect detail.

No. 3—"GOOD NIGHT, DOLLY."

In the first attempt, rather a mess was expected of the background, as directly opposite the open door, in the basement, is a brick chimney with the gray mortar joints plainly visible, several old trunks, a scroll saw, two bicycles and other bric-a-brac piled about it, but as they were out of focus and dimly lighted, they did not show in the plate.

The use of an open door as a background, though not altogether a new idea, may open a new field to the amateur who has been through the experience of photographing individuals and groups in open sunlight or on the shady side of a building. Remember that in photography the sun may be either a good servant or a bad master. Make it the former. As regards exposure, the writer has used and abused a camera for about twelve years, made all the mistakes on the list, and the longer he works, the more he realizes how little he knows. Here comes the opportunity of advising the amateur to invest twenty-five cents in the *Photo Beacon* Exposure Tables. It will be the best twenty-five cents ever expended.

We are all human and prone to error, and when it comes to judging the

No. 4—PEAR BLOSSOMS.

picture from the ground glass, mistakes are likely to occur in the best regulated memory. So look on the ground glass, judge the exposure, then consult the exposure tables, and if judgment and tables agree, go ahead. If they do not agree, go by the tables. They were compiled with better knowledge and judgment than you or the writer possess. Having recently purchased a copy of the little book, the writer is busy figuring how much he might have saved in the last ten years in labor, material and aggravation.

As a last word, it might be said that it is well to *slightly* overexpose, thereby softening contrasts, and by all means use double-coated, non-halation plates, and develop according to their accompanying formulas. The use of pyro and bromide of potassium is not advised for this sort of work, as they give too much contrast. With negatives obtained in this manner, the best results can be obtained on Velox.

AGFA INTENSIFIER.

In experimenting with the new "Agfa" intensifier, it has been found by local photographers that a slight quantity of water, in excess of the proportion recommended, yields better results with isochromatic plates.

TONING VELOX.

Many amateur photographers have tried to relieve the dead appearance of their velox prints. The June issue of CAMERA CRAFT will contain full directions for toning velox prints from the pen of one of the most eminent workers in the West.

PHOTOMETRY IN MEDICAL SCIENCE.

By H. D'Arcy Power, M. D.,
Professor of Medicine, College of Physicians and Surgeons,
San Francisco.

Subject photographed to preserve a record of the muscular development of the back. Scale $\frac{1}{8}$.

IT IS well known today that there does not exist a field of art or science that is not more or less indebted to photography for discovery, expression or record. This is particularly true of anthropology and the medical sciences, in whose text books photographic reproductions have, in greater part, replaced wood-cuts and engravings. In these sciences illustrations are used to express minute anatomical facts or slightly changed relations, a deviation in the curve of the spine, an altered line in the face, or an overgrowth or diminution of an organ or limb. Quite frequently successive photographs of the same individual are given to illustrate the results of treatment or of progressive disease.

It occurred to the writer that in order to obtain the best results, such photographs should give some idea of dimensions, and be taken under conditions that would allow of minute comparison between successive pictures of the same, or even of different, individuals. An examination of scientific works will show that such principles are not in operation. The photographs therein are not taken by scale, neither do they conform with any rule of position or lighting. The best are such as the average professional photographer would produce. To remedy this the writer commenced a series of studies that have finally yielded most satisfactory results. The general method has been described in the *Occidental Medical Times* of July, 1898. Since then, however, much has been done in the improvement of technique, with attendant accuracy in special work.

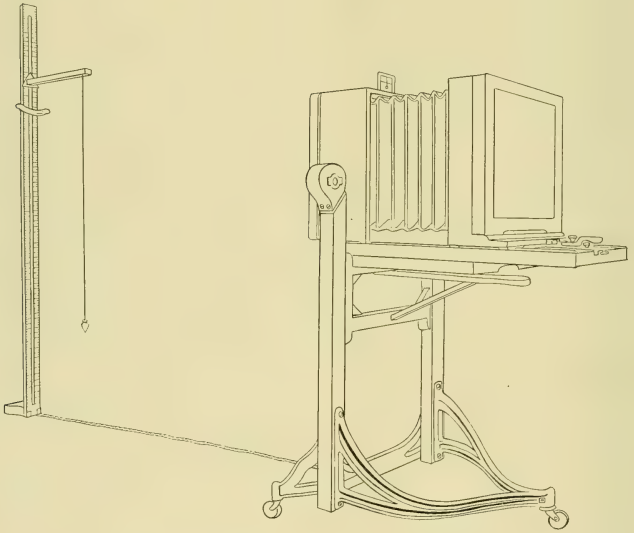
In response to the invitation of the editor of Camera Craft, the following brief account is given of the improved method:

The points to be obtained are: *first*, an accurate representation at a fixed scale of reduction or enlargement; *second*, absolute uniformity of position so that parts of successive or different photographs can be compared; *third*, a means of rapidly apprehending these relations or changes; *fourth*, lighting that will give the maximum of detail; *fifth*, rapidity of operation; and, *sixth*, simplicity of apparatus.

We will take these points one by one. Whenever an object of known size is introduced in a photograph, all objects in the same focal plane can be calculated therefrom, but when many dimensions are to be measured the labor of

calculation is inconvenient. It is to be noted that if the introduced object be a plainly marked measure, its image on the photograph can be used to measure all other objects thereon with the greatest accuracy. Nevertheless a modification of this method gives good results. To exemplify—the photograph of an athlete is required. Make two small spots on the surface of the chest six inches apart. The spots will appear on the negative as clear glass. Put the negative in the enlarging camera and make two spots on the focusing screen six inches apart; rack the camera until the image of the spots on the negative and the spots on the screen coincide. The bromide enlargement will then be of the same size as the original object.

This method is useful where circumstances do not permit of the following plan, habitually used by the writer: Carefully focus the finest details of



Upright support for body with headrest and plumb-line in position. The measuring tape extends from subject to base of camera plumb with lens.

a twelve-inch drawing rule on the ground glass at such a distance that the image covers three inches. Then mark, for future use, the focus on the baseboard; also accurately measure the distance from the surface of the lens to the surface of the rule, and record it. These distances correspond to a quarter reduction, therefore, whenever a photograph by the scale is needed, it is only necessary to rack out the bellows to the mark on the baseboard and, with a measuring tape, place the object at the ascertained distance from the lens. No focusing is necessary, the resulting photograph being exactly a quarter of the size of the original and as sharp as focusing can make it.

The next point is to insure uniformity of position. For most purposes, sufficient accuracy can be obtained by placing the subject against a wall and seeing by the ground glass that the body is centrally placed and that the ears

show equally. However, when the comparison of minute differences is required, such photographs will not be sufficiently alike. When it is remembered in how many ways the relations of the parts of the human body are varied, and with every movement are changed, it is not wonderful that this part of the problem has proven the most difficult to solve. The first step is to place the subject against an upright post with an outstanding arm from which falls a plumb-line. The body is so placed that the image of the line cuts the center between the eyes, the chin and the body, and is coincident with a line on the center of the ground glass. This insures accuracy in the longitudinal, but not in the transverse plane. To meet this difficulty, the ground glass is ruled with lines parallel with the horizon or is traversed by a sliding bar. In this way fixed points on opposite sides of the body can be leveled. It is thus easy to arrange a figure on the ground glass so that, at a subsequent period, it can again be photographed in precisely the same position. It is not so easy to insure the retention of the posture whilst the plate is substituted for the ground glass. This can be overcome by affixing to the top of the lens-board a small rectangular frame with a central plumb-line and cross bars so arranged as to be coincident with those on the ground glass. Successive photographs thus taken are identical in all internal relations. To make these photographs more easily compared they are printed on paper impressed with squares of a size corresponding with the rate of reduction. For example: A quarter reduction would require squares a quarter of an inch in measurement. The squares are then numbered and lettered for identification. By this means it is possible to refer to small parts of a photograph and to immediately detect differences of a sixteenth of an inch or less in successive photographs.

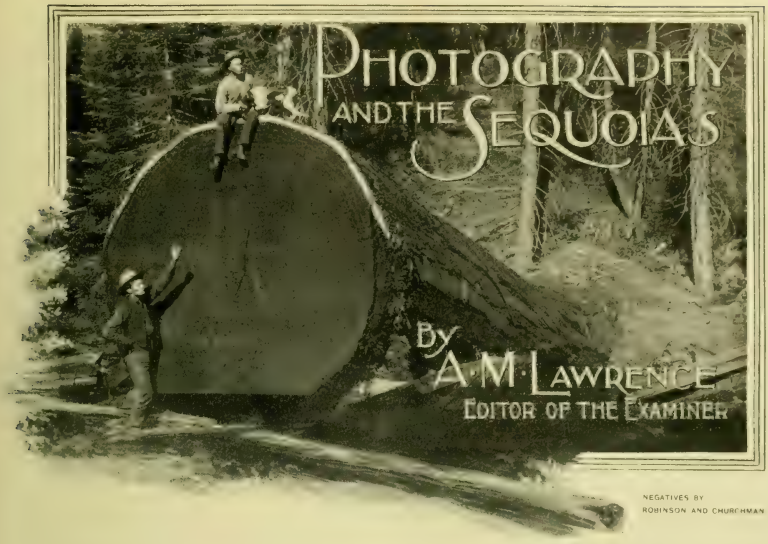
Patient suffering with paralysis of the external muscle of the eye. A photograph taken one month later shows the change brought about by treatment. Scale ¼.

Thus are revealed and recorded the changes brought about by disease or recovery, or the altered lines of facial expression and body configuration, the result of age or growth. So may we show the development of the athlete in training, the growth or cure of a skin disease, or the relative position of facial defects. Pictures of savage races or other human types give not only expression and general outlines but actual dimensions. The length of the nose, trunk and limbs can be measured as readily on the photograph as by the more tedious process of measuring on the body directly.

There are other applications of the method and many details of procedure which cannot be described for want of space. The writer in his practice has long used the method herein described for records, and the College of Physicians and Surgeons of San Francisco is now employing it in the extensive clinics, and in the class demonstrations to the students.

THE WORK OF NATURE.

NEGATIVE BY J. C. BOYSEN YOSEMITE.



In the last few years photography has come into close alliance with journalism. It is within the recollection of young men in the newspaper business when illustrations were a novelty for the daily press. The development can be traced through the files, from the coarse wood-cut of the features of prominent men and the coarser zinc-etching of the pen-drawings to illustrate current events, up to the present methods of reproducing photographs in a daily paper. The camera has thus become the most valuable assistant of the reporter in giving to the buyer of newspapers a vivid idea of the happenings of the day.

THE WORK OF MEN.

One of the most notable services of photography in newspaper work, during recent years, was found in the recent campaign to save the

sequoias of the Calaveras grove from destruction. By a liberal use of photographs the newspapers were able to bring vividly before the people the magnificence of the forests it was proposed to destroy, and the methods of destruction to be employed, and thus to rouse the popular sentiment that brought prompt action from Congress.

There is opportunity for a still larger development of the usefulness of the photographer to the newspaper. If he will learn what the newspapers want, how photographs should be taken for reproduction and for printing by swift presses, more and better work will be done.

DESTROYING THE WORK OF CENTURIES.

NEGATIVE BY BUSHNELL, SAN FRANCISCO

NANCE O'NEILL.

OUR MONTHLY PORTRAIT—STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

A PHOTOGRAPHIC JOURNAL
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CAMERA CRAFT

The growth of photography, the introduction of simplifying methods in scientific picture-making, during the past twenty-five years is one of the wonders of the century. The phenomenal strides made by the photographic inventors of the world, resulting in the production of simple devices and convenient appliances, have made photography in all of its branches an almost universal fad. The Pacific Coast, ever ready to appreciate the merits of an innovation, has kept well abreast in the steady march of progress.

The wonderful climate of California lends itself enthusiastically to the wants of the photographer. The hand of Nature has reared, in eternal beauty, scenic effects unequaled elsewhere on earth. The very atmosphere of the Far West encourages the artistic impulse of its people. With such great natural advantages it is small wonder that when the western photographer has seen fit to cross the continent to compete with the eastern brotherhood he returns with laurels upon his brow. Not less wonderful is the existence of the largest Camera Club in the world in the city of the Golden Gate.

Yet, strange as it may seem, this great class of enthusiasts, this immense body of earnest workers has never been represented by a publication worthy of its trust. The photographers of the West have for years depended upon the journals of the East for enlightenment, but have looked in vain for recognition in their columns. It is to remedy this condition that CAMERA CRAFT now makes its bow to the public.

As to the scope of CAMERA CRAFT nothing can be said; it will have to speak for itself. The only promise made is the sincere intent on the part of the publishers to improve with each succeeding issue. The one hope of the magazine is that it may be so conducted as to meet the approbation of its readers and lend its aid to the material welfare of all interested in photography, whether for pleasure or for profit.

MEAN MEN

Mean men are not hard to find, and the average amateur photographer often comes in contact with the species. However, Mr. A. P. Hill, of San Jose, deserves to be handed down to posterity as the discoverer of the meanest man in California. According to an item now

going the rounds, Mr. Hill was prevented from making photographs of the big trees near Santa Cruz by the owner of the property. No cause was assigned.

The laws of California contain the provision that photographs taken of a criminal event or of criminal surroundings, with the intention of using them as evidence, are not admissible. However, a photograph taken by an amateur or by a newspaper can be introduced.

It occurs to many that the curious combination of California law should be changed.

CAMERA CRAFT'S special correspondent at the Paris Exposition will be Mr. Leon Adrot, formerly of the Sacramento Camera Club, and an amateur photographer far beyond the average. He will present to its readers many of the beauties and curiosities of the exposition, as well as a full report of the World's Photographic Congress to be held in conjunction with it.

A recent exchange mentions the fact that Tetraaethyldibenzylpararosanil-indisulpho acid has been proven to be a most excellent sensitizer in orthochromatic work. It is to be hoped that the new preparation will be put up in small packages.

BOOKS AND MAGAZINES.

Pictures of Chinese babies have an interest to the amateur photographer, exceeded by no other class of portraits, because of the great difficulty in securing subjects to snap. San Franciscans have long been familiar with the work of Mrs. H. E. Schulze, but the *Cosmopolitan* for April contains a surprise in the nature of a collection of her best Chinatown pictures. The photographs are used to illustrate an article on the "Babies of Chinatown," by Mary Davidson, and both article and illustrations are pleasing.

California is represented in another article in the same issue. W. F. Wade has written a bright history of the Lahm sisters, the girl ranchers of Mendocino county. The article is liberally illustrated with photographs of some merit. The photographer's name is not given, however.

The April issue of *Photographic Times* might well be called the Eickemeyer number, as it brings to us a dozen reproductions of Mr. Rudolf Eickemeyer's well-known work. The pictures are excellent, and the poses in the portraits show how truly Mr. Eickemeyer is a master of the craft.

The *Photo Era* for April contains the usual budget of interesting and instructive matter for amateurs and professionals. *Photo Era* is always pleasing to the eye, and is particularly fortunate this month in the selection of its illustrations.

Miss Frances B. Johnston is the subject of the first of a series of personal sketches of well-known photographers. It will be well received, and if the future sketches are as clever as the first, the series will be an attractive feature.

Archibald Cochrane's "Preparing Exhibition Work" contains severals suggestions of great value.

A recent issue of *Photographic Times* contained a picture so much out of the ordinary as to be a complete relief from the "naturalistic" pictures which have filled the eastern journals for months. The title is, "The Night Before Christmas—Tired Out." A mother, plain of dress and feature, bows her head upon the table, all tired out. On the table beside her lies the completed work—a cheap little doll, yet a queen in comparison to the old rag doll that sits staring at the vacant high chair. The former occupant is not visible, and is plainly in dreamland. The story is all there, and it needs but little imagination to go back for years over the whole story of hardships and trials and disappointments. The picture is by Frank R. Miller, and was entered in the Buffalo Express Contest for Amateur Photographers.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

F. M. Braddock, a member of the Sacramento Camera Club, is the winner of the prize offered recently by *Outdoor Life* of Denver, for the best architectural picture. Mr. Braddock submitted a view of the State Capitol.

The following competitions are announced by *Outdoor Life*: May, still life; June, animals, and July, mountain scenery. CAMERA CRAFT hopes to have the pleasure of announcing that the next winner of these prizes is a Pacific Coast amateur.

The following recipe for preventing finger stains from pyro developer is furnished by Mr. Will Lussier: First wash the hands in diluted acetic acid and, after they are dry, rub in with glycerine. Neither of the chemicals will injure the hands or interfere with the work of the devoloper.

The Santa Barbara Chamber of Commerce offers a premium of $25.00 for the accepted design for a colored pictorial representation of the "Mountain Drive," adapted for use on a private mailing card; and at the suggestion of CAMERA CRAFT has confined the competition to photographers.

This is in line with the assertion that the outdoor photographer is the very best advertiser of country, and we trust that the competition will be keen. The Chamber of Commerce promises to exhibit all pictures sent and to use other desirable ones for future advertising. The prize picture will be reproduced in CAMERA CRAFT. The contest closes May 15th.

H. R. Fitch of San Diego is in Mexico. When he returns we will look for some handsome prints.

PLATINOTYPE BY DASSONVILLE

IN THE LAND FOG.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

PLATINOTYPE PRINTING.

BY W. E. DASSONVILLE.

The manipulation of platinotype paper, though very simple, is regarded by many amateurs as an extremely difficult process. The hesitancy and unwillingness to experiment is responsible, more than anything else, for this idea. Platinotype paper is almost as easy to work as the common blue print and as far as simplicity of manipulation is concerned, ranks next in order. It is a paper that possesses unlimited scope for the amateur, and by experiment an individuality in printing may be secured so that in time a print made in a certain tone would always be recognized as your own. In the shadows full detail can be secured, while the shading from the darker to the lighter part of the print is exquisite. The paper is packed in tin tubes to exclude moisture and is of three grades: A. A., thin and smooth; B. B., heavy, smooth, and C. C., heavy, rough. For general purposes C. C. is to be preferred, as it has a surface somewhat between smooth and rough. There is also a sepia paper, but as its value is limited and its keeping qualities poor, it will not come into general use.

PLATINOTYPE BY DASSONVILLE CALVES.

The printing can be done in strong sunlight for strong negatives, or in the shadow for weak ones. Print until the shadows are well out, then immerse in the developing solution. It will take two or three trials to obtain the proper exposure. Development will be complete in about thirty seconds. The print is then transferred, without washing, to a bath composed of muriatic acid, 1 ounce; water, 60 ounces. Two other trays, containing similar baths, should be provided and the prints shifted from one to the other at intervals of five minutes, making three washings in all. After the final clearing bath, wash for thirty minutes and dry.

No developing formula is furnished with the paper, but it can be obtained in packages sufficient to mix fifty ounces of developer. Should the printing be carried too far, the image will, of course, appear too dark; however, prints may often be saved by removing from the solution as soon as the evidence of over-exposure appears. If the print is under-exposed the action of the developer ceases after a certain stage has been reached; therefore it is better to err on the side of over-exposure.

The temperature of the developer is of great importance and has much to do with the tone of the print. By using a cold solution a cold tone is secured, while at a temperature of 200° Fahr., the print has that rich brown tone so very suitable for certain subjects. The normal temperature should be about 80° Fahr.

Under-exposed prints may be intensified after washing in a bath made by adding 10 grains of silver nitrate to a solution composed of hydroquinon, 2 grains; citric acid, 20 grains; water, 1 ounce. The print should be rocked continually, in the tray, until the required density is reached; then fix in a 10% hypo solution.

Mr. Ernest Cramer, of the G. Cramer Dry Plate Co.," has returned East after a fortnight's visit to San Francisco.

GOSSIP.

The photographers feel toward Albert G. C. Hahn as the artists do to Millet or Corot, for he gave Velox to the world. He is one of the best authorities on photographic chemistry and paper in the country. Mr. Hahn visited the Pacific Coast recently on a pleasure trip.

Although he is no longer connected with the Nepera Chemical Co., he holds large interests in the leading photo enterprises in America, and has a very warm spot in his heart for the amateur.

Speaking of Velox, Mr. Hahn made the astonishing statement that the output of Velox from Nepera Park in June of last year measured exactly 110 miles 25 inches wide. This, of course, did not include the miles of defective paper condemned and burned for the silver which it contained. It would interest the amateur to know that 1,584,000 4 x 5 prints could have been obtained from the June output.

The Vive Magazine Camera will be heard from this year. It presents a rich appearance and works with a smoothness and precision that cannot but be gratifying to the operator.

Our advertising pages contain an incomplete description of the Graphic Cameras. This camera is altogether new on the Coast, it having been previously made only for the retail trade of the manufacturers, Folmer, Schwing & Co. of New York.

It is intended for the amateur who is beyond the experimental stage and who wants the best that money can buy or brains and experience produce. It is the highest priced camera on the market, and commands attention wherever shown, owing to its high grade construction and ingenious devices.

It is made in all the popular sizes and styles of folding and cycle cameras, and needs only to be seen to be appreciated.

The 1900 catalogue of Premos is the first of the eastern catalogues to appear, and, as usual, is a sample of high art in catalogues. There are but few changes noted. Some of the unpopular styles are dropped, but all of the old favorites are retained at the same prices as last year, with the exception of the Pony Premo No. 6, the price of which is advanced in all sizes. The same shutter is retained, and the general construction will be the same as last year, with a few minor improvements.

The Kodak catalogue is at hand, and is unusually unique and attractive, the cover being particularly noticeable. Two new numbers of the Folding Pocket Kodak are listed, and the Falcon has given way to the Flexo at $5. The specials are retained as well as the Panoram, the latter being made in a smaller size for pictures 2¼ x 7, using the Folding Pocket Kodak film, and selling at $10.

A new Al Vista Panorama camera is announced for 1900. The new camera takes pictures 3½ x 10 inches and smaller and sells for $20. The price on the larger sizes has been reduced $5 each. All are provided with a time movement, making it the only instrument with which pictures may be taken in dark places or on dark days, or small stops be used in the panorama line. This has done away with a great objection to the Panorama camera, and makes this instrument very valuable to surveyors, engineers, architects and illustrators, while the amateur will, of course, find new uses for the Al Vista.

Visitors to the Yosemite valley this season will not be met with the difficulties of former years in securing photographic supplies, as Mr. J. T. Boysen has opened up with full and complete lines of everything needed by the amateur.

The announcement is made that the well-known and popular Oakland firm of Travers & Leet has dissolved partnership. In future its business will be conducted by Mr. Leet at the old stand.

Will Lussier, the local representative of the G. Cramer Dry Plate Co., has opened an office in the Johnson Building, 120 Sutter street, San Francisco, where he will be at home to the many users of Cramer plates.

Fred Bushnell has opened an elaborate gallery in San Jose, Cal. G. W. Harris, formerly of Little Rock, officiates as chief operator. San Jose may well feel proud of this combination.

FREAKS.

On this page will be printed each month photographs of freaks and freak photographs. Every photographer at some time will attain a unique effect. We want it and are willing to pay for it.

A NOVEL CALLA.

California is known all over the world as the home of the lilies, but it is doubtful if the counterpart of this specimen has ever been seen before. It is a calla lily which, by some freak of nature, has grown a second spathe about the primary spathe while the leaf above is also undergoing a petaloid transformation. The photograph was made by Dr. H. D'Arcy Power of San Francisco.

ON THE DEER TRAIL.

To Mr. Charles Hughes of Red Bluff, Cal., belongs the peculiar distinction of possessing the only flash-light negative ever made of a deer in the woods. The camera was focused on a deer trail and, by means of an ingenious arrangement, the flash-light powder was connected with a trigger to be sprung when the trail was crossed. The same action opened the shutter, set at one second. When the camera was visited next morning Mr. Hughes found the flash fired and the trigger sprung. When the plate was developed the photographer was made happy by the accompanying picture. How far the buck jumped when the flash went off still remains a mystery.

EDITOR'S NOTE: — Contributors to this department should send their prints on gelatine paper for reproduction. Always inclose a short explanation with the print, together with name and address.

NEWS OF CLUBDOM.

The following sparkling letter is from Mr. T. Mont Scribner, a former Californian, who has for a number of years resided in Japan:

"KOBE, JAPAN, March 10th.

"Our club is, of necessity, nothing like the camera clubs of the States. The clubs here are the English Club, typically English, and the Kobe Regatta and Athletic Club. Our Camera Club is an auxiliary of the latter and our numbers are small, but we manage to work to each other's advantage very well in the way of exchanging prints, or, rather, borrowing negatives and making our own prints.

"One has a great many difficulties to surmount in Japan to ensure success or even partial success. In the first place, the heat of the summer makes developing a difficult task, and summer is really the only time that a good picture can be taken. In the winter, although it seldom rains, the sky is most always cloudy. Another disagreeable feature lies in the fact that plates are very apt to spoil during the summer months if not properly packed.

"I went to Kioto recently expecting to get some fine views of the cherry blossoms for which this place is famous, but was unlucky, inasmuch as it was cloudy all the time I was there, and now that the fine weather has come, the cherry blossoms have faded away. There is a mountain about five miles distant from Kioto, one side of which is covered with cherry trees, and when this place is in bloom, it is the most beautiful place one could imagine. At the foot is a large river, on which gaily-colored boats, after the fashion of gondolas, pass up and down with parties of merry-makers, with the indispensable geisha ever present."

The growth of the Los Angeles Camera Club, from an idea, six months ago, to an organization numbering over two hundred and fifty members at present, is the surprise of the year. It must be in the climate.

The third annual salon and exhibition of the Pittsburg Amateur Photographers' Society will be held in the Carnegie Art Galleries at Pittsburg from May 17th to May 31st. As heretofore, there will be two separate divisions—the salon and general exhibition, and both divisions are open to artistic workers throughout the world. Full information may be obtained from Mr. Jos. H. Hunter, secretary, Carnegie library, Pittsburg.

The first print exhibit held by the Alameda Club ended April 7th, and was a success in every way. The number of prints exhibited was large and the attendance gratifying. "A Bunch of Quail," exhibited by Philip Sydney Carlton, was greatly admired, as were a number of platinotype prints by W. E. Dassonville. E. L. Gifford had nearly a hundred prints on exhibition, chief of which were some moonlight effects on the Alameda marsh. A small print shown by Thomas Turner and a card of bay scenes by J. H. Timmons are worthy of mention.

The Vacaville Club, though very recently organized, has already over fifty members. As the Vaca valley is one of the garden spots of the state, and its members are interested in spreading its beauties abroad, some interesting work may soon be expected from the new club.

The Poco catalogue is handsomer than any of its predecessors, which is saying a great deal. There are but few changes, and these minor ones. Tele-photo Cycle Camera is a new long-focus instrument and destined to attract attention.

The April slide exhibit at the Camera Club, consisting of views from Buffalo, Syracuse and Detroit, indicated the growing excellence of the selections. Each month the American Lantern Slide Interchange, by a thorough process of weeding out bad effects, has increased the value of its work until it stands well to the front in American educational institutions.

The members of the California Camera Club were so well satisfied with the trip to the Yosemite last year that it has been decided to repeat it this year.

Poor Jones! He used to be respectable, but now he's a photographer.

FOREIGN.

PHOTOGRAPHY AND THE BOER WAR.

LONDON, April 1st.

It is not generally known that modern photography was, in a measure, responsible for General Roberts' recent successes in the South African war. That such was the case is beyond dispute, and the innovation has begun to attract attention in Europe. The prediction is freely made that it will not be many weeks before the nations of the world will interest themselves in the new process.

On October 11th of last year, Lieutenant Foulkes, a young officer of the Royal Engineers, sailed for Cape Town, taking with him a complete outfit for taking photographs to be used in a manner hitherto considered impracticable, and which were so successful as to completely revolutionize the existing methods of military reconnoissance.

Heretofore reconnoitering parties have returned from their perilous trips with but a meager idea of the lay of the land and roughly sketched maps showing the general distribution of the enemy's lines.

Lieutenant Foulkes' proposition completely revolutionized the method, and, in brief, is an application of modern photography to replace scouting parties. The young photographer indicated the exact position and formation of the Boer forces by means of tele-photo pictures. Although the equipment taken to South Africa was of the lieutenant's own invention and constructed after his own ideas, the use of the telephoto lens, and, in fact, his entire outfit, is perfectly familiar to American photographers.

The young lieutenant carried his complete equipment on his own and an orderly's bicycles, painted khaki color. The camera is a simple-looking affair, very compact, but fitted with the most expensive scientific devices. The valuable point in the camera is, of course, the tele-photo lens. By means of this attachment, a field miles distant was imprinted upon the negative with the same relative distinctness as if taken but a few rods away. The dry atmosphere of the veldts had much to do with the success of the pictures. The photographs thus secured presented an accurate picture of the Boer forces at such a distance as to be practically invisible with an ordinary field glass, and by their aid the line of march was laid out.

The photos were also of great value in verifying routes and preventing columns from losing their way, also rendering them practically independent of guides when advancing over unknown ground. On a number of occasions ambuscades were avoided and the presence of large forces of Boers revealed. The difficulty met with by Lieutenant Foulkes was the absence of running water. Where water was obtained in sufficient quantities, prints were turned out for the use of the officers in ten minutes after the exposure was made.

The great value of Lieutenant Foulkes' service is admitted by the British War Office. Experiments were made by him while serving in Sierra Leone, in the Hultax expedition, securing results upon which the War Office sent him to South Africa.

The young Lieutenant is not the only photographic attache with the army in South Africa. Major W. C. Beevor, Royal Army Medical Corps, has done great service with his new influence machines to assist in the application of the Roentgen rays to the localization of bullets in the bodies of soldiers. From the few machines Major Beevor took with him, the service has grown until now not a single regiment is without a complete outfit.

The new machines are always ready for X-ray work. The wires are led directly from the machine to the Crooke's tube, and no batteries, Leyden jars or induction coils are needed. The wounded men are supported by a sling, radiographs made by Major Beevor, and when the surgeon reaches the case, he has but to consult the finished print, which is turned out in a few moments by the expert.

Major Beevor has with him three cameras and a cinematograph. As he is a keen photographer, ranking with the best in Europe, and is thoroughly versed in photography, his work has attracted great attention all over the world.

NOTES.

It is seldom that the photographers of the Pacific Coast enter the lists against the guild in the East, but when they do the prizes "westward take their flight." This is apropos of Oscar Maurer's recent success at the Art Institute in Chicago. Among the pictures exhibited by Mr. Maurer was the "Coming Storm," a characteristic Mexican study, which attracted so much attention here.

We are in receipt of a handsome little spring booklet issued by Hirsch & Kaiser of San Francisco. The half-tones, stock and typographical makeup of the booklet stamp it as first-class advertising matter. If all of the dealers issued advertising matter of this class, the whole business would be benefited.

Now that the black plague is under control in the Islands, the photographers have taken a new lease on life. The recent opening of two new stock-houses, one in Honolulu and the other in Hilo, is an indication that the cranks haven't had the fever scared out of them by any means.

J. Walter Burke, of Christ Church, N. Z., sends CAMERA CRAFT a beautiful rayfiltergraph. We regret that the rough bromide paper upon which it is printed makes it impossible to reproduce it. Mr. Burke will represent CAMERA CRAFT in New Zealand, and our readers may expect many interesting articles and beautiful pictures from him at an early date.

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NICHOLAS.

PATENTS.

American patent rights have recently been granted for the much exploited Secco film, and the patentee is now negotiating for its manufacture in this country.

A decidedly novel and ingenious camera has been placed for the first time on the American market by the Reflex Camera Company. The distinctive feature of the Reflex is that it shows on a ground glass, placed in the top, a full-sized picture right side up, projected by the same lens which is used to impress the picture on the plate. This result is obtained by a mirror placed between the lens and the plate, in such a manner that the rays passed by the lens are deflected upward to the finder. This finder then becomes a focusing screen, and the lens is focused until the image is sharp. When ready, the release lever is pressed which moves the mirror out of the way, and brings into action a focal plane shutter directly in front of the plate, allowing the necessary exposure to be made. The act of releasing the pressure on the exposure trigger causes the mirror to resume its original position, and the picture is again visible on the finder. Such cameras have been in use for several years across the water, but this is the first time it has been offered in this country.

Henry Kuhn, of Rochester, has been granted a patent for a sensitized metallic-coated photographic paper. In his process the paper is first coated with a layer of gelatine, having the metallic base suspended therein in the form of a fine powder. This metallic base may be of any of the metals or alloys. It is next given a coat of suitable varnish or gelatine rendered insoluble, over which is spread the emulsion, which is preferably of the bromide or developing variety. The inventor claims that the metallic base gives to the print a peculiar luster unlike any other photographic prints, that it is absolutely permanent, and states that this process may be applied to cloth, leather, or any other suitable fabric, which renders it applicable to many kinds of ornamental work.

A patent has been granted to O. H. Peck and C. L. Anderson, of Minneapolis, for a film camera, which clips off the film as it is exposed and allows it to roll up and drop into a receptacle, from which it may be removed and developed at any time, regardless of the number remaining in the camera.

The following patents pertaining to photographic apparatus have been issued recently: W. C. Farrand, background carrier; D. Kelly, Muskegan, Mich., plate holder; O. H. Peck, Minneapolis, Minn., roll holder; O. H. Peck and C. L. Anderson, Minneapolis, Minn., magazine film camera; B. W. Rea and E. S. Gregory, Gallatin, Mo., portable dark room; A. Woolensak, Rochester, shutter; L. C. Cox, Quincy, Ill., portable dark room; R. K. Marston, Chicago, revolving negative washer; H. W. Locke, Rochester, swing back; L. H. Wallace, Denver, Col., magazine camera.

Many ingenious devices have been invented for the purpose of automatically registering the entry and departure of employes in large establishments, and some of them, such as the time-clock, have proved practically useful. One of the simplest and apparently the most effective is the photographic arrangement described below in a translation from *La Science Francaise*. The writer of the description, M. C. de Boisgerard, says that the instrument is both swift and automatic; and from the fact that it combines the cinematograph and the chronometer, it certainly may be said to be "up to date." The description is as follows:

"The apparatus, which is a rectangular box having an object lens in front and a glazed panel on top, photographs the face of the person who stands before the lens, by means of a novel but extremely simple arrangement, and at the same time includes in the picture the dial of a clock inside the box. Thus, when the sensitive film is developed there is seen just under the employe's face, the hour at which he reached the factory or left it.

"Instead of signing a time-sheet or receiving a time-card, the employe, whoever he may be, has only to turn his face toward the apparatus and press the button. * * *

"As in the cinematograph, the film unrolls automatically before the objective; but after each individual pose, which lasts about half a second, the shutter works at the pressure of a button. A small electric bulb in the apparatus enables it to be used at night.

"The clock has a black dial on which are the days of the week, the hours and the minutes in white, and over which move two pointers of white enameled aluminum.

"Although the price of the apparatus is relatively high, it costs incomparably less than a time-keeper of flesh and blood, while guaranteeing much greater impartiality and exactness. The films are sold separately in rolls 3.65 meters (12 feet) long and each will hold 288 portraits.

"This time recorder has been named by the inventor 'The Guv'nor'."—[Translation for the *Literary Digest*.]

One of the wholesale firms on the Coast is experimenting with the McDonough method of colored photography with a view to placing it on the market in the near future. The McDonough process is the photographing of the so-called natural colors of scenery, persons

or any object, and by mechanical means reproducing what is before the camera.

The essentials for making a negative by this process are: a Taking Screen, Chromatic Balance Shutter, and Erythro Dry Plates, the latter being the Seed 26x Normal plate orthochromatized for the red wave lengths of light. The Taking Screen is a plate glass coated with gelatine emulsion and ruled in red, green and blue parallel lines from three to six hundred to each inch, in the order named. This Taking Screen is adjusted in a metal frame inside the camera, and attached to a lever conveniently placed outside the box, where it can be used to throw the Taking Screen in contact with the Erythro Dry Plate when slide of plateholder is withdrawn to make exposure. The Chromatic Balance Shutter, which is placed on hood of lens, is made with sectors of lemon yellow and orange-colored glass or mica, actuated by a metal finger, and its office is to balance the varying conditions of illumination, there being less blue in bright sunlight than with cloudy skies, or when photographing indoors. The adjustment of the shutter for the difference in illumination is by moving the metal finger to open or close the colored sectors. A negative made under conditions noted will show in duplicate the lines of the Taking Screen, but with different degrees of opacity according to the light value that has fallen upon the silver haloids of the sensitized Erythro Dry Plate through the Taking Screen and Chromatic Balance Shutter. There color value lines are transferred to the positive, which is made in the ordinary manner, by superposition, using any good transparency dry plate, and the transparency or positive so obtained is placed in contact with a Viewing Screen, which is made exactly like the Taking Screen, only on thinner glass, the red, green and blue lines corresponding in number to those used on the Taking Screen, and the lines on positive or transparency and Viewing Screen being in parallel or register; the color appears as in the object photographed. When this is done, fasten the two together with spring clips, bind the edges with adhesive strips, and your positive is ready for the window or projection in the lantern.

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CAMERA CRAFT

JUNE

1900

The Darlot Lens

The Darlot Lens needs no introduction. We are the Pacific Coast Agents and we have the first complete stock shown west of the Mississippi. A new special catalogue on application.....

Kirk, Geary & Company

San Francisco and Sacramento

MADONNA

By Dr. H. D'Arcy Power

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. I. SAN FRANCISCO, CALIFORNIA, JUNE, 1900. NO. 2.

CALIFORNIA ASTRONOMERS AND THE ECLIPSE.

BY FREDERICK MYLIUS, THE PERSONAL REPRESENTATIVE OF CAMERA CRAFT, WITH THE LICK EXPEDITION TO GEORGIA.

THOMASTON, GEORGIA, May 15th — Three perfect instruments, telescope, spectroscope and camera, with a corps of learned men, are California's contribution in the astronomical migration toward the totality belt of the solar eclipse of May 28, 1900. The California party, under charge of Prof. W. W. Campbell and Astronomer D. Perrine, arrived at Atlanta on April 30th and immediately proceeded to Thomaston, where they were joined by fourteen astronomers from various parts of the world.

Although the car containing the apparatus was delayed for over a week because of the floods in Texas, it arrived ahead of the astronomers and awaited them on the siding at Thomaston. The erection of a temporary observatory was the work of but a few days, and the boxes containing the instruments were removed to the scene of operations. The great care exercised by the scientists in unpacking the apparatus was only equaled by the calm, business-like manner in which all of their operations are conducted. Long experience and the frequent disappointments of the astronomer's work has rendered the scientists excitement-proof. Besides, this trip is an easy one. Sometimes the astronomers do not get a convenient location in the line of totality, and then

THE CROSS MARKS THE LOCATION OF THE CALIFORNIA ASTRONOMERS IN GEORGIA.

the apparatus has to be moved. Once in India Prof. Campbell had to go into the interior of the famine and drought district to get in line with the total eclipse. The move was accomplished after untold hardships. In addition to the apparatus, water and provisions had to be shipped from Bombay, over two hundred miles distant.

The equipment from the Lick Observatory comprises seven photographic telescopes of various sizes and four spectroscopes. The largest of the telescopes is forty feet in length, and the photographic attachment is guaged to take a 14 x 17 plate. The immense tube is now in position and pointed directly at the spot where the moon will eclipse the sun, and it will not be used until the moment of totality. The exposure for the principal picture will be sixteen seconds. On this picture will hang the success of the party. The camera will search the space surrounding the sun and Mercury for the little hidden planet dreamed of by astronomers for ages. Besides the great telescope, there are special instruments for other features of the eclipse. Photographs will be taken of the sun's limb and the spectrum. A snapshot of the spectrum being obtained, its study by means of the spectroscope will give immense additions to the knowledge of the elements of the system.

The hope of the party lies in the possibility of locating that orb of mystery, the inter-mercurial planet. Though little is said by the scientists, the quiet suppression shown when the topic is introduced speaks clearly the interest felt. Sir William Ball has called the little sphere the "Planet of Romance." Others have called it Vulcan even before it has been found. The chief observatories of the United States have sent well-equipped parties to search for this little world, but the chances are with the astronomers from the Lick Observatory. The scientific workers, of whom Professor Campbell is the head, beget confidence and association with them inclines one to believe in their success. The one predominant trait of the party appears to be confidence. At times some careless outsider suggests the possibility of rain on the twenty-eighth. To those connected with the expedition, the question would seem to be a delicate one, but with unceasing regularity, the answer comes, "In that event our work will have been for naught."

Several encouraging letters from Mr. W. H. Crocker, who has furnished the finances for the trip, have been received.

IN NEW QUARTERS.

The Sunset Press and Photo Engraving Company, who print CAMERA CRAFT, have been moving into their new quarters, 106-108 Union Square avenue, this month. With increased facilities and new machinery, CAMERA CRAFT will be enabled to present an even better appearance in the future than in the past. The thanks of the magazine are due to the employees of the company for their faithful work in getting this issue out on time.

THE TONING OF CARBON PRINTS.

By H. D'Arcy Power, M. D.

BY MISS B. S. YATES

NEW USES of photography are manifold. One man employs it to find new stars and explore the unknown regions of space. Another, floating in a balloon high above the enemy's ramparts, betrays his dispositions and saves his friends. To a third, it is the means of recording the vestiges of the past before they are lost beneath the erasing finger of time, or of observing the changes that growth or decay, disease or returning health induce in the human frame. To yet another, photography is an innocent amusement, the source of much profit to the photographic dealers.

But with none of these workers do I seek audience in this paper. My words are addressed to those who seek in photography a gratification of their desire for the beautiful or a means to express those emotions that best find utterance in pictorial art. It is undoubtedly true that neither art nor even thought can transcend the limitations of the medium in which it seeks expression. It is said that the Romans failed in abstract thought because, unlike the Greek, the Latin tongue was rigid and inflexible, and that Chinese thought halted and is stagnant for a like reason. Certain it is that had pictorial art been compelled to express itself solely by means of a burned stick, we might truly have had beautiful charcoal drawings, but still an infantile art compared with what we possess. There are two reasons why photography has been slow in asserting itself as a worthy and plastic medium of art expression. Firstly, because few photographers are artists, or seek to make themselves such by following the studies that every art student knows to be essential; and, secondly, because photographers have persistently adhered to *inflexible* media which limit all efforts at individuality to the choice of subject and time of exposure and the modifications which are possible in the production of the negatives. Both of these powers, useful as they are, are sharply limited. We may choose our subject and point of view, but we cannot make the sun to shine or hide. How often do we see some beautiful combination of scene and atmosphere which may never again recur. We return on the morrow and the day after until weary; there is the scene but not the conditions which made it beautiful. It lives in our memory, and had we but command of the media of the brush artist, we could combine that which we saw with that before us and reproduce the desired effect. But with a negative and silver or platinum paper we are helpless. Retouch the negative? Yes, we can do that, but of what avail? We can tinker on little things, but the broad effects whereon success depends are beyond the power of the retouching pencil. Then, again, the necessary reversal of the lights is in itself prohibitory because very few

can mentally foresee the result of their work. What is needed is a *flexible medium for the positive*, so that, starting with a well-developed ideal, we can see our work grow towards its realization. Without this, photography can never be creative — and lacking the creative faculty, it may be a useful but never a fine art.

Starting with these postulates, I wish to point out the fact that this flexibility can never be given by any form of silver or platinum printing. Local reduction or intensification may be practiced on them, but the subtle changing of valves which is so often necessary to attain a desired effect is quite impossible by this means. So far this power of modification can only be obtained

BY JULIUS BRIED EARLY MORNING.

by the employment of the pigment processes: gum bichromate, Artigue carbon and ordinary carbon transfer. Undoubtedly the first-named process gives the greatest latitude. But to do good work it requires great knowledge of the principles of light and shade and considerable dexterity in applying them. Nevertheless, the end is worth the exertion. With ordinary carbon tissue the power of modification is more limited, but is much greater than many suppose. By the careful use of streams of hot and cold water, broad changes in the distribution of light and shade are easily effected, and by the adroit application of a fine sable brush small points of high light can be introduced. With the aid of the flat blender broad bands of light, such as the light on the water of a distant shore, can be brought into required prominence. These and many other things are possible to the artist who uses carbon tissue as a medium.

So much by way of introduction to the subject of this paper, which is to urge the importance of tone and tint in photography and the ease with which an immense variety of shades may be obtained by the carbon process. If anyone should doubt the value of color, let him imagine the effect of printing a moonlight scene in red chalk, or let him note how greatly superior a print of such a scene in blue-black is to one produced in warm or engraving black. If we cannot have the colors of nature, let us at least in our monochrome approach as closely as may be to the dominant tint of the scene we depict. It is a rule little observed by the professional carbon printer, who fills his showcases with green-colored ladies and brick-red children. Such vagaries are permissible in purely decorative work, but in portraiture and pictorial photography they are simply absurd and vulgar. Unless a man make his own carbon tissue (not, by the way, a very difficult matter), he must be content with the colors the manufacturers provide. Of these about four, viz., warm black, sepia, sea-green and red chalk are sold by the supply houses in this city. Some ten other shades can be obtained by order from New York. Among the latter are some valuable tints to the amateur, such as gray, blue-black, marine blue and terra cotta. Taken as a whole, the carbon tissues have been provided more with an eye to the demands of the professional photographer than to the requirements of the landscape worker. Neither sea-green nor blue-black are entirely satisfactory for the foliage of field and forest, although a great improvement over the blacks and purples of silver and platinum. While looking for a remedy for these defects, I bethought myself of several suggestions by Duchuchois concerning the toning of carbon prints. Little or no space is given to the subject by most of the writers on carbon printing, and so far as I can judge by what I see of professional work, the latter live on in their usual happy ignorance of anything but the requirements of a bad public taste. I commenced by experimenting with some of the formulæ given by Duchuchois, and passed on to other experiments of my own based on a knowledge of chemical reactions. As a result of this work I think that I may safely affirm these two facts:

First. That weak prints possessing the necessary detail may be built up to any density required.

Second. Taking the fourteen tints now on the market as a basis, almost any conceivable shade of color can be derived from them by means of one or the other of the many possible methods of toning.

These toning processes are divisible into two classes. The first of these is dependent on *dyeing the gelatine*, basis of a carbon print. For this purpose a great variety of soluble dyes are available. Many of the permanent anilines, such as indulin, which runs from deep violet to blue-black, and decoctions of logwood, which yield beautiful purples, excellent for sunset effects. It is to be remembered that the effect of using these dyes on carbon tissue is entirely different to what it would be if applied to a silver print. The dye is absorbed proportionately to the thickness of the gelatine, which in turn is proportionate to the depth of the shadows. Consequently the high lights, having little or no gelatine, are not stained at all, but retain their pristine brilliancy. If gelatine tissue be prepared without any pigment and then sensitized, printed and transferred to glass or celluloid and subsequently stained with such a dye, the

resulting picture is like stained glass. The second process is accomplished by floating the print in a solution of a given salt until sufficient be absorbed, and then removing it to a bath of another salt capable of producing a colored precipitate with the first. This immersion in chloride of iron, followed by potassium ferrocyanide, will precipitate Turnbull's blue in the tissue. A primary bath of lead acetate followed by potassium chromate will yield chrome yellow.

Third. Certain salts, notably potassium permanganate, undergo decomposition when brought in contact with a carbon image, and deposit thereon precipitates which build up the density of the image and modify its color. In this way a carbon transparency too thin to be of any value can be built up to any required strength by simply immersing it in a 1% solution of potassium permanganate and removing it when the desired density is attained. The deposit of oxide of manganese is not of a pleasing color, but it can be modified by some of the other staining processes, especially if worked in neutral or alkaline media. These modifying baths may be applied to the print directly after development—or after the print has been dried and remoistened. They are easily controled, change little in drying, and are more simple and certain than the gold toning process. I append a list of some of those that have been tested and found satisfactory, and also a few devised by myself. I expect to publish others as my work progresses.

First, Monckhoven's process. Prepare the following three solutions:

A—Water ..... 1 ounce
Ferric sulphate, $(SO_4)_3 Fe_2$ ..... 20 grains

B—Water ..... 1 ounce
Sodium carbonate ..... 10 grains

C—Water ..... 1 ounce
Gallic acid ..... 5 grains

The solution A should be kept in the dark. The proofs should be immersed for five minutes into the solution A, then rinsed for an instant in cold water. Then immerse for ten minutes into solution B and rinse it again. Lastly, the image is treated by the solution C for a period varying with the color and intensity desired. The image should now be washed thoroughly. The result will vary with the color of the tissue employed and the duration of the last bath. Thus with red chalk a very fine set of warm purples are obtained ending in very dark purple. With sepia the effects approach olive, and with sea-green a most useful modification approaching the tint of foliage is obtained.

Many other colors may be produced by its action on the other tissues, among them being gray-blue and black. If, after the sodium carbonate bath, the print be transferred to pyrogallic acid, the tone will be modified in the direction of a golden brown. A somewhat similar tone is obtained by treating prints with a preliminary bath of 1% potassium permanganate followed by pyrogallic acid. Carbon tissue in any color can be modified towards and up to a bright blue by substituting potassium ferrocyanide for gallic acid in Monckhoven's process. This blue may be converted into green of several tints and shades by after treatment with a 1% acetate of lead solution followed by a 1% solution of potassium chromate. Copper sulphate followed by potassium chromate

gives a good landscape green. If potassium ferrocyanide be used instead of chromate, the color will be a rich chocolate shading into red. Nickel and cobalt salts followed by the ferrocyanides and chromates give beautiful pale green and blue deposits only available with a white carbon tissue such as I have prepared for my own use. Of staining media I can recommend indulin, which gives a beautiful violet approaching black, and logwood, which yields a fine purple. Potassium permanganate builds up an image, and is useful in modifying some ground colors to the yellow shades. Thus on Prussian blue it forms a good green.

I trust that many amateurs who wish to test the powers of their art may give these methods a careful trial. If their experience be like my own, they will regret not having tried sooner.

BY MRS. C. S SMITH, MARYSVILLE EVERYONE READS IT.

ABOUT THE TONING OF VELOX.

BY W. G. WOODS.

BY OSCAR MAURER.

TO THOSE who object to the cold tone of Velox paper it may not be generally known that almost any tone desired, from the richest brown to a brick red, may be obtained by the simple process of toning after fixing and washing. The formula is as follows:

10% solution nitrate of uranium	1 dram.
10% " red prussiate potass	1 "
Glacial acetic acid	2 "
Water	6 ounces.

The prints are immersed in this solution and toning takes place quickly, the prints changing to dark brown, then through the various shades of brown into sepias, and if continued, to a terra-cotta, which for some subjects is very pleasing. But little reduction takes place. When the desired tone is reached the prints are washed slightly. Care should be taken that a stream of water is not allowed to strike them with force as this has a tendency to wash out the tone. The prints are then dried or mounted in any manner desired. One objection to this method is that there is a tendency to yellow stains in the high lights. This may, in a measure, be avoided by making the toning bath weaker, and also by alternately toning for a minute or two, then rinsing off in water. Should the sky or other high lights be turned yellow to such an extent as to be disagreeable, it may be removed with a very weak solution of cyanide of potassium. Go over the stained portion of the print with a brush or tuft of cotton moistened in the reducer, and have a tray of water, or running water handy to check and prevent spreading of the solution and consequent removal of the tone from other parts. Blue and green tones may be secured by toning in the above solution and then in

Perchloride of iron	1 dram.
Hydrochloric acid	2 "
Water	40 ounces.

A pleasing effect may be obtained by toning first in the uranium, then going over certain parts with a brush and the iron solution, always having the water ready to prevent spreading. By this means two tones may be obtained on the same print. I have such a print before me — a ship at the dock — in which the print was toned to a dark sepia and the water touched up with the iron solution. The effect is pleasing, as the general sepia tone seems to harmonize with the

surroundings of weather-worn ship and docks, while the slight greenish brown shade in the water is just as it is seen in the foul water of the docks. As to the permanency of this process I am not prepared to state, and while I should hesitate to say it was permanent, I have prints toned in this manner which show no change after a lapse of two years. I have also obtained, at times, beautiful sepia tones by a modification of the fixing bath, making it strong in alum and leaving prints in it longer than usual, but I could never depend on this method as I could not obtain the results desired at all times, different emulsions seeming to work differently and often in a very streaky manner.

A VACATION HINT.

The majority of instructors speak in warning terms of the terrible power of light at the seashore. "Use the fastest speed and smallest stop," say they, and the result of a rigid adherence to their creed is a flat negative and an entire absence of detail. The instantaneous shutter working at its fastest

BY F. J. CLUTE

speed has little chance to light up the under side of a curling breaker or catch the glisten of the spray as it forms on the crest of a giant roller.

Remedy this by giving more time. Compare the detail in a picture taken in 1-25 with one taken in 1-100 of a second. Do not stop down too far. Try f/32. You will find in the slower picture that delightful feather edge bespeaking action in all pictures of the sea, together with a more equal distribution of the lights and shadows. Do not use the fastest plates. Cramer's Banner or Seed's 26 give the best results and are not so likely to fog.

A PLEA FOR RECOGNITION.

By Oscar Maurer.

Not until the present day has the camera been recognized as a legitimate means for the production of pictures that may be termed works of art. Such tardy recognition is largely due to prejudice, but not entirely so. Photographers themselves have been to blame because they established a standard of their own, a standard which compromised to a great extent the technique of photography with the spirit of the picture. The marvelous fidelity with which almost every subject can be reproduced by means of the lens, carried the photographic worker so far away from art that he has not yet learned his lesson from nature.

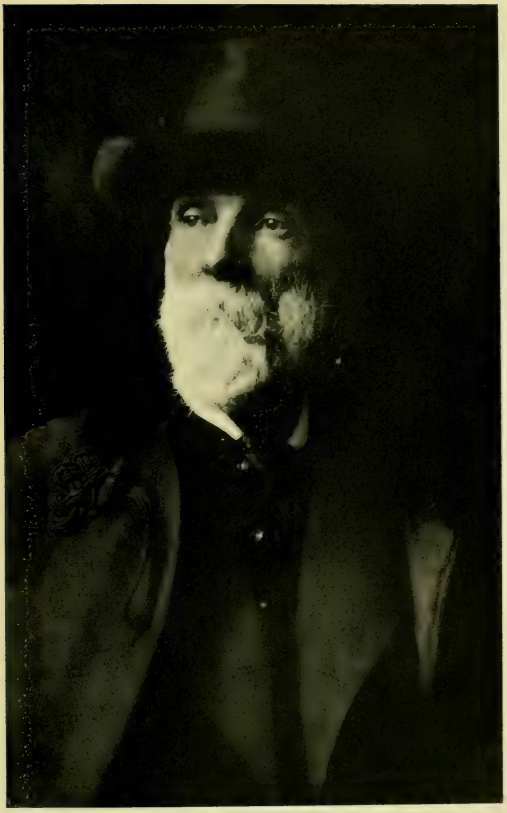
That a higher ideal is being established is well attested by the splendid examples that have recently been exhibited both in Philadelphia and in Chicago. The art associations of these two cities have so far recognized the photographer's productions that they granted certain photographic societies the privilege of regular exhibitions within the art associations' halls. The critics have told us how eminently successful these experiments were.

My own observation convinces me that among the vast amount of good material that professional and amateur photographers have produced on this Coast, enough may be secured to make a very creditable display at the Hopkins Art Institute should that body deem it advisable to take the step. Invitations to exhibit could be sent to photographers of established reputation in all parts of our country. By appointing a competent jury of selection, there should be little difficulty in making a display that would do credit to any city in the world. As a public instructor, such an exhibition would be invaluable. Many amateur photographers have both ability and opportunity for producing pictures that have a decided claim to the term "artistic," and I predict a genuine surprise to the jury of selection when they are ready for the task of choosing the best. That California is as far advanced in artistic photography as any of her sister states is a fact that we gather from the opinion of prominent local artists who have traveled and the criticism of the East.

The news will be heralded with joy when Camera Craft can announce to the photographers of the Coast that a salon of photographic productions will soon be held at the Hopkins Institute of Art.

TOURING THE STATE.

George Eastman, the kodak man, is touring the state in a private car. He is accompanied by his mother and a small party. The trip is solely one of pleasure, and scarcely a point of interest in the state has been overlooked. The party spent a portion of their time in the south and then came to San Francisco. The Yosemite Valley was visited by the male members last week.



"FIGHTING" JOE WHEELER.

Arnold Genthe.

SNAPS AT THE STREET FAIR.

ILLUSTRATED BY THE EDITOR.

THE police captain, who rode at the head of the floral parade during the recent street fair at Sacramento, said that the snapping of camera shutters sounded like firecrackers on Fourth of July.

The amateurs were out in full force, and the plates and films destroyed numbered thousands. One photographer who makes a business of finishing amateur work, developed over nine hundred exposures made on that day.

The Chinese parade the day after the flower carnival laid other golden eggs for the supply dealers. The dragon was snapped so often and by so many determined youths that it became ill and wore a sickly smile during the progress of the procession.

The exact number of plates spoiled on his majesty will never be known. Many enthusiasts followed the tortuous peregrinations of the monster for blocks without obtaining a favorable opportunity to snap. The unceasing activity of the bearers allowed not a moment of rest, and thus added scores of battleworn plates and films to the ash can.

However, many interesting negatives were taken. The Sacramento Camera Club will, by thorough selection, make sets of slides of both the flower and Chinese parades that will do much to advertise Sacramento and California.

The first illustration gives some idea of the musical portion of the parade. The sacred drum, although weighing nearly one hundred and fifty pounds, was carried the full length of the parade without once stopping. The beater, running alongside, kept up a continuous tattoo that would have put that "Little Cherman Band" to shame. The second picture shows the

guard of the banners. One of the sacred banners carried in the parade was worth $1500, embroidered with pure gold. The dragon shown in the succeeding picture is a true example of the spectacular in art. It was more ornate than anything in that line ever shown in America, and afforded great opportunities for effective work.

The coming carnival at Stockton will vie in magnificence with the one at Sacramento, and the snapshot artists of that fair city will have the opportunity of their lives to show what they can do. CAMERA CRAFT would like to obtain pictures of this event, and would be pleased to receive prints for reproduction.

WONDERFUL MARINE VIEWS.

The Westby series of marine pictures in carbon, by F. H. Worsley Benison of England, is the product *par excellence* of the year. We doubt if any pictures of English scenery would awaken the peculiar memories of fields and dales so vividly as these photograms awaken memories of the sea. In these skillful records one thinks not of the pictured ocean, but of the real entity itself, for oddly enough it is always *the* sea one finds and never *a* sea. Admirably has he chosen the spot to pitch his camera and the moment to expose the plate. These views consist mostly of big breakers on rocky coasts, with clouds of spray and masses of curdled foam; although there are a few very fine renditions of some of the abbeys. Above all is Mr. Benison's treatment of the foam; not merely the thin film of foam but the thick, white smother of the breaker-line which looks by daylight like whipped cream, and by moonlight like molten silver, as the great wave rushes onward to break and to glide quickly back to Mother Ocean in a thin back wash over the sands.

This superb set of views is the property of CAMERA CRAFT and will be loaned for exhibition to any of the camera clubs on the coast, by application to the publishers. They are now on view at the California Camera Club. Clubs wishing to obtain the set for exhibtion are requested to write to the editor stating the length of time it is wished to display the pictures. No club will be allowed to retain the collection longer than two weeks. Applications will be considered in the order of their receipt.

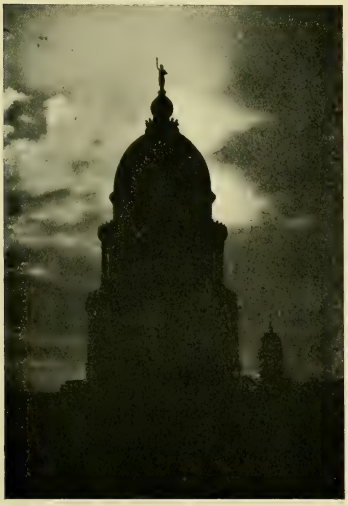
A MOONLIGHT COMPARISON.

ILLUSTRATED BY DR. POWER AND CHARLES WEIDNER.

Some genius in the photographic world, in reply to an inquisitive amateur, said that the only rule to be closely followed in making moonlight pictures was to avoid the moon. While this reply was comprehensive, it was misleading, as the accompanying example will show.

The upper illustration was made by Dr. Power at Sacramento, and is a true moonlight picture. The exposure given was twenty minutes, with the diaphragm at f/32. The lower picture is a fake moonlight by Charles Weidner, and was obtained by the ordinary process of pointing directly at the sun for the moment obscured by clouds. The exposure in the second picture was 1-50 of a second with the diaphragm at f/32.

The two illustrations serve to show the marked difference in appearance between the genuine and the counterfeit article. It will be seen that the effect obtained in the real picture is directly opposite to that obtained in the counterfeit. In the real the foreground shows the presence of light, while in the day picture the sky is bright and the foreground black. Notice the peculiar lighting.



In the true moonlight stars are shown by streaks across the plate. The long exposure necessary to obtain the detail on the building made it impossible to avoid this, but the defect was corrected by skillful retouching so that only five points of light are shown in the finished print. The stars, however, are distributed on the picture with the same relative clearness as they were in the sky when the picture was taken.

In both instances the plates used were of the fastest speed.

Which of the two is the most artistic?

"THE PACIFIC LEAGUE" A REALITY.

PRESIDENT ERWIN'S SUGGESTION MEETS WITH AN ENTHUSIASTIC RECEPTION.

The article on a "Pacific League of Camera Clubs" by President Erwin of the California Camera Club in the May number of CAMERA CRAFT has attracted much attention throughout the West. So cordial has been the endorsement of the idea that President Erwin will shortly take steps, by which the subject can be discussed at a meeting of representatives of each club. The meeting will, in all probability, be held in San Francisco during the progress of the Native Sons' celebration. Full details of the proposed organization will appear in CAMERA CRAFT.

Among the numerous letters received endorsing the plan are the following which give some idea of the enthusiasm with which the suggestion was met:

LOS ANGELES, CAL., May 9, 1900.

EDITOR CAMERA CRAFT:

CAMERA CRAFT for May, containing the suggestion from Mr. Erwin as to "A Pacific League of Camera Clubs," attracted much favorable comment here. Permit me to say that the idea embodied in Mr. Erwin's article appeals to me most forcibly as offering in the same degree to camera clubs all the social and educational advantages offered by the club to individuals.

The Pacific Coast, from the orange and palm groves of Southern California to the pine-clad mountains of Oregon and Washington with caps of perpetual snow, forms the bountiful treasure-box of the camera devotee, and an interchange of the best work and ideas of the long list of clubs cited by Mr. Erwin would surely conduce to a fuller appreciation of the glories of our Western Empire and the weaving of a pleasant bond between those kindred spirits throughout its length, who, to paraphrase, are "by one touch of photography made akin."

I sincerely trust that a definite plan for an association of clubs may be evolved from the suggestion of Mr. Erwin and I pledge my hearty cooperation in such a movement.

Yours very truly,

C. C. VALENTINE,
Pres. Los Angeles Camera Club.

SACRAMENTO, CAL., May 9, 1900.

EDITOR CAMERA CRAFT:

I have read the article by Mr. Erwin in the first number of CAMERA CRAFT and think that the idea is a good one, especially in the matter of a print interchange. I believe the plan outlined by Mr. Erwin would have a tendency to revive the interest in the dormant camera clubs and prove very helpful to new organizations. It should receive the hearty cooperation of every club on the Pacific Coast. Yours very truly,

W. E. COGSWELL,
Pres. Sacramento Camera Club.

AN AERIAL WONDER.

The current issue of *Pearson's Magazine* contains an article descriptive of the Aerial Graphoscope which is sure to be of great interest to all lovers of the optical lantern. The apparatus is the invention of Mr. Eric Bruce and is simply a narrow lath of wood one side of which is painted white, the color graduating in shade to a gray in the center. This lath is caused to revolve rapidly by means of a multiplying wheel or electric motor and an ordinary lantern slide projected on it. The rapidly revolving lath is, of course, invisible to the eye, but the moment a slide is projected the full image appears. This is owing to the fact that the retina of the eye retains the impression for a short time after the object has disappeared. The fractional parts of the slide projected have not time to fade before the effect of the complete picture is seen on the rapidly revolving lath. The picture is, in fact, an intangible image which is apparently projected in space, and its ghostlike character is emphasized by placing real figures or objects behind it and projecting specters or skeletons at them. The absolute transparency of the image can then be seen to the greatest possible advantage.

ILLEGAL USES OF PHOTOGRAPHY.

By George W. Hazen, U. S. Secret Service.

The use of photography in making counterfeit bills and stamps of the United States has become so general that the members of the Secret Service division of the Treasury Department has undergone a course of instruction upon the practical uses of that science.

The statutes of the United States forbids the making, procuring, or even the possession of a photograph of any government obligation. Although this law is generally known, the Secret Service has to seize some print or likeness of a Treasury certificate or coin every day or so. It is well for photographers generally to be fully informed of the law upon the subject, so that they can instruct prospective customers as to its danger.

Most of the counterfeiters of bills now use photography in reproduction. One of the most dangerous bills the Secret Service ever had to combat was made through a photographic process. Newspaper readers are familiar with the gigantic plot of the Jacobs-Kendig gang in Philadelphia last year. The counterfeit "Monroe head" one-hundred-dollar bill was one of the best counterfeits ever turned out.

W. L. Jacobs, a wealthy cigar manufacturer, together with W. L. Kendig and Arthur Taylor, two engravers, planned to bribe a Treasury official, issue $10,000,000 of the fraudulent notes, place them in the Treasury, and draw out $10,000,000 in good money. Had it not been for the cupidity of the engravers, there is not a doubt but what the great steal would have been an accomplished fact. Each member of the gang was to get $2,000,000 as his share of the proceeds.

The plates were photographed on steel, etched, and the finished bills were perfect. Banks accepted them without hesitancy. The lathe work on the back of the bills was even more perfect than that upon the original bills. The camera had brought out every single line on the original bill, and the finished product was a perfect piece of the engraver's art. But the engravers grew impatient and did not wait for the steal on the Treasury to be consummated. They passed hundreds of the bills, and the counterfeit was discovered. A few days later Chief Wilkie of the Secret Service had uncovered the whole plot and arrested all of the conspirators.

Walter C. Cresson was arrested by the writer in a St. Louis cellar just as he had completed an exposure of a $10 certificate. He was a noted counterfeiter, but a conviction was not secured because the government could not prove that he had made a photograph of the bill. Had we allowed him to develop his negative, a conviction would have been certain.

In 1895 William J. Deane, alias W. J. Farron, also a noted counterfeiter, was arrested in Oakland. He had in his possession a complete photographic outfit, and was engaged in turning out an exceedingly dangerous $10 bill. He was sentenced to four years' imprisonment.

On the whole, it is best for photographers not to experiment with Uncle Sam's bills as subjects.

NEGATIVE BY VAUGHN & KEITH

IRENE EVERETT.

OUR MONTHLY PORTRAIT—STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

A PHOTOGRAPHIC JOURNAL
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A WESTERN CONVENTION

CAMERA CRAFT intends to agitate the question of a Pacific Coast Convention of photographers. General inquiry throughout the state has led to the belief that such a convention is not only desirable but an actual need to those who make their living through the lens and shutter.

The professional photographers of the East get together occasionally and exchange ideas, look over each other's work and take a general rest from the steady grind of making faces. We recall instances where photographers of this coast have attended conventions in the East and have returned with easy honors. CAMERA CRAFT would be pleased to learn of a serious consideration of the idea. A convention held in San Francisco with a first-class salon as an adjunct would undoubtedly lead to a permanent organization, and result in the advancement of the craft in a manner hitherto untried. CAMERA CRAFT will be pleased to hear from the professional photographers, and pledges its enthusiastic support of the movement.

THE GREAT ECLIPSE

One of the most important events in the field of photography, in modern times, was the eclipse of the sun on May 28th. Scientists all over the earth have been perfecting photographic apparatus for years to be used in making photographs of the great event, and thousand of dollars have been expended in fitting out expeditions to the region of the totality. Recognizing the importance of the event in photographic circles and the necessity of intimate association with the workers, CAMERA CRAFT has arranged for the service of a personal representative on the scene. He is Mr. Frederick Mylius of Ingleside, Ga. In this issue will be foun l his description of the preliminary work, together with a forecast of the event. The July number will contain details of the work of the California expedition stationed at Thomaston, Ga.

OUR RECEPTION

To the many who have so kindly complimented CAMERA CRAFT, we wish to return our sincere thanks. If doubt ever existed as to the reception of a newsy photographic journal, it has been swept away by the warmness of our welcome. We wish to say to the many hundreds who have applied for sample copies and have not received them as yet, that it was not our fault. After printing an issue of 5000 copies of the May number, we felt assured that we had a supply sufficient for our wants for many months, but as the pile began to dwindle we realized the mistake. By the fifteenth of May not a copy was left at our disposal. This month we will print enough to supply the demand, so if you do not receive a specimen copy, drop us a postal.

THE JURY BOX

Intelligent criticism in the arts has been the making of many who would otherwise have lingered in the darkness of obscurity. Appreciating this fact and being convinced that the amateur photographer is as much in need of unwavering criticism as the student in other branches of art, CAMERA CRAFT will, in the future, devote space to the criticism of prints sent in for that purpose. The department will be called the "Jury Box," and will be in charge of an expert. An effort will be made to reproduce, each month, prints with accompanying criticism so that all may profit through the knowledge or discrepancies of others.

STAFF ADDITIONS

Beginning with the June issue Dr. H. D'Arcy Power will review the leading American, German and French photographic journals for CAMERA CRAFT. Learned men, such as Dr. Power, seldom have time to give to a "hobby," but when they do, the whole fraternity profits through their work.

Mr. Morgan Backus who was formerly publisher and editor of the *Pacific Photographer*, will, in the future, conduct the amateur and professional departments. Twelve years' experience as a professional photographer and photographic writer have well fitted Mr. Backus for the position, and the readers of CAMERA CRAFT will profit thereby.

The manner in which the camera clubs throughout the West have taken to the suggestion of a Pacific League of clubs is a source of congratulation to both Mr. Erwin and CAMERA CRAFT. Active steps are now under way to perfect the organization.

The description of King's River canyon by David Starr Jordan, in the April number of *Sunset*, is one of the finest pen pictures ever published by a western magazine. With the vivid word painting and magnificent views by Moore and LeConte, the article comprises an advertisement of California's beauty that will have weight for years to come.

The August CAMERA CRAFT will be called the Indian Summer number, and will contain many beautiful illustrations of a distinctly western flavor.

Three new camera clubs have been organized this month in the West, all of them in populous centers.

LIEUTENANT LANSDALE AT SAMOA.

LIEUT. LANSDALE.

The picture printed above is the only one ever taken of the unfortunate young lieutenant, Philip Van Horne Lansdale, who was ambushed and killed by natives on the German plantation at Vaslao near Apia, Samoa, on April 1st of last year. The picture bears peculiar interest at this time because of the presence in San Francisco harbor of the "Philadelphia" from which vessel Lieutenant Lansdale went to his death. The photograph was taken shortly before the ambush and shows the officer and some of his men surrounded by the "friendlies." The name of the photographer is not known.

PHOTOGRAPHIC MAGAZINES.

Photographic Times for May adds another able article on "Chance Photography," in which Mr. Beasley gives an interesting insight into the workings of salon juries. Gertrude Kasebier's studies are examples of the class of work referred to in "A Plea for Recognition," by Mr. Maurer, in this issue of CAMERA CRAFT. If more of the amateurs had the same appreciation of artistic photography we would not stand knocking outside the portals of the magic world of art.

Photo Beacon postpones its much looked for article on the "Chicago Salon," and gives instead another "Postal Camera Club" scheme. "Landscape Photography" is continued, the illustrations being excellent, so much so as to warrant the assertion that they deserve better paper and a higher class of half-tonework.

Anthony's Photographic Bulletin for May devotes considerable space to the "Solar Eclipse," seemingly a matter of great interest to photographers all over the world. "Acid in Development" contains many good suggestions, while "Mirrors in Photography" treats of a subject that has always been more or less a delightful mystery to almost every amateur.

Photo Era gives a review of the "Chicago Photographic Salon," by Henry G. Abblott, in this month's issue, but as usual, ignores the modest claims of the workers on the Pacific Coast. "The Hand Camera for Beginners" is an excellent article for the novice. The *Era* also joins the *Photographic Times* in the praising of Gertrude Kasebier's work.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

A soft effect in portraiture can be obtained by selecting a thick plate and placing it in the holder wrong side out. This suggestion, though not new, was exemplified by a very clever head made by E. L. Gifford recently, in an ordinary room, with the yellow tinted walls for background and reflectors. It is worth a trial to those who have not yet made the experiment.

The "Nydia" pocket camera measures 7¼ x 4¼ x 1¾ inches, takes 3¼ x 4¼ plates or films, has a lever focusing arrangement and is one of the most compact instruments on the market. It is manufactured by Newman & Guardia in England.

Old gelatine papers such as Solio, Rex and Disco can be rejuvenated by first soaking in a 10% solution of salt and water, and then, after rinsing, passing through a solution of distilled water 1 ounce, nitrate of silver 60 grains. The paper must be rinsed again and dried in dull light. This has generally been found to work satisfactorily but it must be said that the resulting prints are not as clear as those on fresh stock.

Do not waste your money on "hypo-eliminators." Use plenty of clean water. Negatives may be satisfactorily washed for quick drying and printing if held under a tap three or four minutes and constantly brushed with a large tuft of cotton.

Mr. W. E. Meadows attributes his recent successes in making outdoor photos of his friends to the fact that he always insists upon their being grouped in an open space, which he himself selects. He then watches for what he calls the "happy moment" to make the picture.

Mrs. B. P. Oliver of San Francisco has been very successful in catching pretty groups of children.

Mr. J. A. Hertz is authority for the statement that beautiful carbon effects can be obtained on Etching Matte paper by toning in an ordinary gold bath.

Miss Knell, who has always been an enthusiastic amateur, recently became Mrs. Frank W. Johnson. Her wedding trip through Southern California produced numerous pretty photographic mementos.

REVIEWS.

The May number of *Outdoor Life* shows a decided improvement in the class of its illustrations. No extraordinary ability is needed to snap the every-day subjects, but to get good negatives of the "people of the forest," surrounded by their own atmosphere, requires skill, patience and an absolute absence of fear. *Outdoor Life* presents this class of photography in a manner unequaled by any publication in the country.

The Ladies' Home Journal is again to the front with a number of excellent photographic reproductions of the exteriors and interiors of artistic homes. Photographic illustrations alone can give adequate comprehension to such subjects, and there is a special fitness in this use of the art by the leading women's paper. Women have taken a firm hold of their own in photography, and their natural artistic temperament has contributed much to their success as amateurs.

The press of the state is full of plaints regarding the absence of pictures of the oil fields. Says the Bakersfield *Echo*:

"There is a field in the Kern River district that is not being worked, and that is the *photographers'* field. Almost hourly strangers on the streets inquire, 'Where can I get some pictures of the oil fields?' And the answer they get is unsatisfactory, 'There are none to be had.'"

Here is a chance for the southern photographers.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

COPYING.

Many photographers, even to the present day, will insist that a wet plate is necessary to make a good copy, and just so many are mistaken. Years ago, when dry plates were not made with such mechanical nicety, and sensitometors varied from one batch to another, such an assertion may have been correct, but I will venture to say that a good slow plate, Seed's 23 for instance, can be made to give as strong a negative with as clear shadows, if proper lighting, exposure and developer are used, as can be obtained with a wet plate, and further, that the resulting print will be more pleasing to the customer who orders the work.

As to lighting, sunlight is most essential. I make most of my copies on the roof and find the advantages gained to be well worth the extra trouble and inconvenience. There you will always obtain a light which will not only be of uniform strength, but from its very color is a great aid toward obtaining clear copies from yellow prints. Again, in working from oil paintings or glazed prints it is much easier to avoid reflection, it only being necessary to slant the subject so that the sunlight strikes at an angle.

Any handy man can make a copying board for himself. Obtain a board twelve inches wide and eight feet long. Nail on one end of it a piece fourteen inches long at a right angle; cut a slot down the center of the long board, put your camera on fitted with a wide angle lens, fasten it with your tripod screw, and there you are.

This does very well for small copies and by marking on the board the different distances for the position of the camera when making copies of the same size, or enlarged once or twice, much fuss and bother as well as time in focusing can be saved.

For large drawings and paintings, the difficulty of placing the subject square with the ground glass must be overcome in another manner. After the lighting is even my method is to attach a long string to the lens and measure from corner to corner of the article and then move the camera up or down or from side to side as may be necessary.

The lighting of a canvas so as to avoid reflections from brush work and bulging of the canvas is hard and sometimes decidedly aggravating, but with patience can always be accomplished. When working with an overhead skylight one hint may be of use. Slant the top of the picture toward the camera, get the camera near the floor and tilt up. Of course a swing-back with side and vertical swings is most important, and by its use many minor faults as to position may be corrected.

As for plates, I use Seed's 23 for all black and white subjects such as handwriting, drawings and photographs, and for colors I find Cramer's Medium Isochromatic to answer the purpose admirably. Give liberal exposure in all cases and do not use a *color screen* on portraits unless there is some very particular reason for its use. A color screen takes away the quality of the delicate yellows and reds upon which the color scheme of portraits so much depends.

Use a much diluted developer for paintings and be careful not to develop too far. For the other copies use a strong developer rich in bromide of potassium. I use a metol-hydrochinon formula and often add two drams of a saturated solution of bromide to eight ounces of developer. By sufficient exposure and the liberal addition of bromide absolutely clear shadows can be obtained together with a fine black deposit in the high lights.

Frank H. Doyle, the Aristo man, left for Milwaukee on May 26th to attend the National Photographic Convention. He will be gone several months.

Fred Bushnell leaves on June 9th for New York, where he will sail for Paris on the fourteenth with the exposition as his mecca.

Through arrangements completed with Dr. Philip Mills Jones, in charge of the archæological expedition from the state university, CAMERA CRAFT readers will be kept in touch with the discoveries made by the party.

FREAKS.

On this page will be printed each month photographs of freaks and freak photographs. Every photographer at some time will attain a unique effect. We want it and are willing to pay for it.

KING KAMEHAMEHA'S WATCH.

PHOTO BY WETHERBEE

The past century has been productive of many things. However, it is doubtful if the improvements accomplished can be more clearly set forth than by the accompanying photos. In comparison are shown the timepieces of 1800 and of 1900. The big one represents the art of 1800. This wonderful timepiece was made in England in the year 1812 for Kamehameha I., king of Hawaii, and at that time was doubtless considered a "marvel of lightness and compactness." It is four inches in diameter, one and a half inches thick, and weighs over a pound. Although sold to the Hawaiian king for solid gold, it is merely a good quality of brass. The highly-prized relic is the property of Lumberg & Lee, the San Francisco jewelers, who kindly loaned it to CAMERA CRAFT to be photographed.

EDITOR'S NOTE:—Contributors to this department should send their prints on gelatine paper for reproduction. Always enclose a short explanation with the print, together with name and address. Do not write on the photograph.

A NEW VIEW OF MIRROR LAKE.

Every photographer who visits the Yosemite longs for a good picture of Mirror lake. The limpid clearness of the water lends itself readily to the photographers's work, and thousands of beautiful pictures are obtained every year. For this reason it is probably the best advertised lake in the United States, and a trip to the Yosemite without seeing it is worthless.

BY J. T. BOYSEN MIRROR LAKE.

The accompanying illustration is by J. T. Boysen of Yosemite, and shows the wonderful effect of the light upon the water. A word of advice to those who wish to try for the mirror effect may not be amiss. The first requisite is to obtain the best effect by repeatedly moving the camera until the image appears clear in the water. A small stop should be used, f/32 or smaller, and a full exposure given. Nothing less than a twenty-fifth should be given.

GOSSIP.

CONDUCTED BY F. I. MONSEN.

The Bourgeois Aine French water colors for coloring lantern slides and all photographic papers fill a long-felt want. Until their advent the old methods in vogue — oil colors and aniline dyes — were the only mediums available. With the Bourgeois colors the photographic colorist rejoices in the possession of a palette as rich in its beautiful variety of tints as that of the water color artist. Their absolute transparency and simplicity of manipulation will go far towards popularizing the colored lantern slide. In our next issue will appear an article on "The Coloring of Lantern Slides," in which the entire process will be treated in detail.

Among the many superb instruments catalogued by the Folmer & Schwing Manufacturing Co. is the "Sky Scraper" camera. It is designed especially for photographing tall buildings, where an excessive rise of front is required with increased back swing. It has a reversible back and is fitted with all the adjustments of a perfect view instrument. The bellows, which is a special feature of this camera, is wedge-shaped at the front and closes up very compact, allowing the lensboard to be raised so that the optical axis of the lens is carried somewhat above the top line of the plate, a decided advantage in photographing tall buildings or view work in canyons where the walls are high. The front board, being the same size as the ground glass, permits a large portrait lens to be used. The instrument is thus converted into a portrait camera. It is substantially built and finished in the superb manner of the "Graphic" cameras of this company's make.

The use of the magic lantern is rapidly increasing among all classes of photographers. Lantern work is one of the most beautiful and fascinating of photographic recreations, and San Francisco is fortunate in having many experts in the art.

The California Camera Club was the first organization of its kind to see the value of the stereopticon in club room and lecture work, and the popularity of that society is due, in no small measure, to their devotion to the lantern and the limelight. There are several private collections in San Francisco that number many thousand slides. One amateur, whose collection embraces over 5000 slides, and whose interesting and instructive talks have delighted and instructed thousands of people throughout the state, is perhaps the best of his class in the United States.

Specimens of direct printing in color by the McDonough process show a decided advancement over their former efforts. The company has designed, and is now building, a special press for this work and hope, by its use, to bring this unique and interesting color-printing process to even greater perfection than heretofore. The press is equipped with four cylinders, one ruling a red line, one a green line, and the third ruling a blue, the lines being 1-300 of an inch apart. The fourth cylinder carries the engraved plate which prints in black ink over the colored lines. Wherever the ink is deposited the resulting image is, of course, black. Where no deposit takes place the color effect is seen, thus giving the whole color scheme in a wonderful, realistic manner.

Practically the same principles are applied in the case of their transparency process. The color negative is obtained by one exposure on one plate and one printing of the negative on the copper engraving plate. In its simplicity it brings the reproduction of colors within the reach of both the amateur and professional photographer.

During the past month hundreds of snaps have been made in the country traversed by the line of the California Northwestern railway. CAMERA CRAFT would like to reproduce some of these pictures and would be glad to consider prints at an early date.

The prize of $25 offered by the Santa Barbara Chamber of Commerce for the best view of the mountain drive was won by Mr. N. V. Reed of Santa Barbara. The award was made on May 23d at a full meeting of the Chamber of Commerce. The winning picture will be reproduced in CAMERA CRAFT for July.

NEWS OF CLUBDOM.

THE PHOTOGRAPHIC ART CLUB.

The first outing in May with the Alameda Camera Club to Sunset Park was enjoyed by a large number of members. A special car was chartered and the trip was a merry one. Every one took an interest in the business end of the expedition and, in consequence, many beautiful effects were obtained.

The alternate Thursday quiz recently instituted by the club has proven a valuable adjunct to the work. The last quiz and demonstration, given on May 31st by S. Purnell on "Ten Per Cent Solutions in Developing," was instructive and pleasing.

The outing and field demonstration to Fairfax was liberally attended and greatly enjoyed.

THE CALIFORNIA CAMERA CLUB.

The two demonstrations during the month of May were particularly instructive. Mr. Frank Doyle's manipulation of aristo platino was enjoyed by a large number of club members, while Dr. Power's demonstration on carbon printing was one of the best of the year. The formulas used by Dr. Power in attaining the delightful results exhibited will be found elsewhere in this issue. The Demonstration Committee is to be congratulated upon the happy manner in which their selections are made.

The new arc lamp recently installed by the club has had the effect of booming the desire for enlargements. Experts pronounce the lamp one of the best in the city.

The Demonstration Committee has agreed upon the following series of demonstrations for the ensuing twelve months subject to change: Carbon Printing, The X Ray, Nonhalation Plates, Telephotography, Reduction and Intensification, Lenses, Bromide Enlargements, Stereoscopic Photography, Gum Bichromate Process, Development of Plates and Films, Sulphite and Hyposulphite of Soda, The Camera — Hand and Tripod, Portraiture, Negative Retouching, Transparencies and Enlarged Negatives, Art Side of Photography, Dodges in Printing, Iso, Plates and Color Screens, McDonald Process of Color Photography.

The announcement is made that the Los Angeles Club will join the Slide Interchange next year.

The Washington Camera Club was organized on May 21st at the Ferry museum, with Charles Bedford as president; D. B. Sheller, vice-president; W. H. Gilstrap, secretary, and Arthur G. Prichard, treasurer. Meetings will be held monthly at the Ferry museum, where the club will have quarters, and where each member will have pictures on exhibition. Many members have been enrolled and Tacoma will soon be proud of her club.

The San Diego Camera Club was organized on May 13th with a charter membership of thirty-seven. The officers elected for the first term are: President, Ford A. Carpenter; vice-president, J. E. Slocum; treasurer, F. W. Kelsey; secretary, E. L. Rector; house committee, A. J. Stevens, Mrs. W. T. Blake and F. E. Patterson.

With a few alterations, the Los Angeles Camera Club by-laws were adopted. The initiation fee in the club is $10, with monthly dues at 50 cents. All charter members are given the privilege of paying $4 in advance for one year's dues.

The second annual outing of the Oregon Camera Club was given on May 19th. Hundreds of club members enjoyed the trip up the Columbia river to Hood river, and many fine views were taken.

The Skaguay Camera Club held its first annual banquet on May 7th, and the gathering was nominated by the local press as "one of the jolliest functions given this season."

The Los Angeles Camera Club has incorporated without capital stock. The directors are: C. O. Valentine, W. D. Campbell, W. R. Jones and Alice J. Stevens, Los Angeles; F. Q. Story, Alhambra; F. Knopf, J. S. France, O. Granicher, G. G. Johnson, H. F. Norcross and A. B. McCoy, all of Los Angeles.

MONTHLY 15 CTS.

..The Darlot Lens..

The Darlot Lens needs no introduction. We are the Pacific Coast Agents and we have the first complete stock shown west of the Mississippi. A new special catalogue on application.....

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PLEASE MENTION CAMERA CRAFT

BY F. H. WORSLEY BENISON ENGLAND

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CAMERA CRAFT

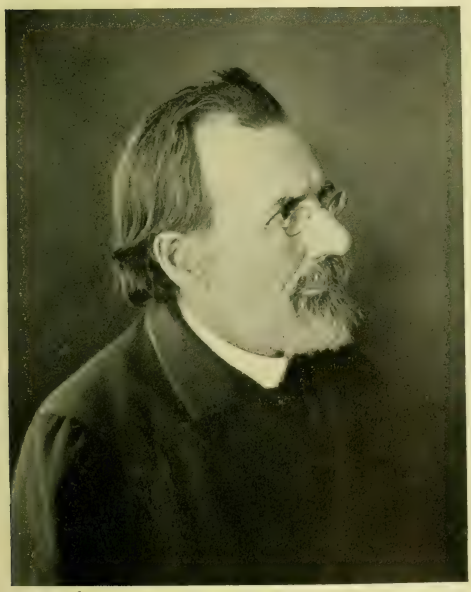
A PHOTOGRAPHIC MONTHLY

VOL. I. SAN FRANCISCO, CALIFORNIA, JULY, 1900. NO. 3.

HOW TO TEST AND SELECT A HIGH GRADE PHOTOGRAPHIC LENS.

BY ERNST GUNDLACH.

The testing of photographic lenses for their optical and photographic qualities has always been a favorite subject of discussion. Much good matter has been written and practical methods have been devised and proposed, yet there is apparently a general absence of practical and reliable methods and information to the photographic public as to what constitutes a good photographic lens. This absence is not only felt by beginners, but in no small measure among those who have already acquired great experience and skill in the photographic art.



Ernst Gundlach

The steady advance and progress in the manufacture of superior photographic objectives and the increasing endeavor of opticians to construct their lenses in strict accordance with scientific principles, has more and more increased the necessity of the photographer understanding and becoming familiar with the theory and fundamental scientific laws upon which the construction of the modern photographic lens is based.

The necessity of mathematical treatment, to which the new developments and laws of photographic optics are to be submitted, and the subsequent increasing difficulty of making these laws generally understood, suggested to the writer the idea of devising simple and practical methods by which the technical application of modern photo-optical principles and laws could be rendered possible without resorting to special mathematical treatment and the use and solution of algebraic formulæ.

Furthermore, since a reliable and valid judgment regarding the quality of a lens cannot be obtained from the mere examination of the image or picture for sharpness and clear definition, but only by a proper *relation* of the result of such examination to certain other factors, such as relative aperture, angle of field, etc., and since this relation cannot be utilized and valued without an appropriate common designation expressing the *resultant* of the coefficiency of the several factors, the writer endeavored to devise a practical method of determining a common or general comparative *numerical value* of the several distinctive properties and virtues of a lens.

The most important qualification of a good lens is that it "cuts sharp" at a large aperture and with a sufficiently wide angle of field; that is, it must present sharpness and fine detail not only in the center, or a more or less limited zone in the center, but also at the *marginal* parts of the field or the plate, and the latter must be of a size relative to the equivalent focus of the lens, to embrace a sufficiently wide angle of field. The larger the relative aperture at which a lens will cut sharp on a plate of a given size, or, as in the case of a wide-angle lens, the larger a plate a lens of a given aperture and equivalent focus will cover sharply, the higher its photographic quality and value. Therefore, the proper valuation of the sharp-cutting or *defining power* of the lens, as we will term it hereafter, depends on the knowledge of the true equivalent focus or focal length, the true relative aperture and the angle of field of the lens.

The relative apertures for the different openings of the diaphragm are usually marked on the mount of the lens, and the equivalent focus and the angle of field are also usually given by the maker. Since, as a matter of fact, these quotations are usually far from being accurate enough to be used as a basis for the determination of the defining power and other properties of the lens, it will be necessary to determine these three important factors first, before testing the lens for sharpness and other qualities, and we will now treat these factors separately: first, the equivalent focus; second, the relative aperture, and third, the angle of field.

EQUIVALENT FOCUS.

The equivalent focus of a compound lens is the focal length of an ideal single lens without thickness, which will, under equal conditions, project of a given object, an image equal in size to that projected by the compound lens.

Hence the "equivalent focus" may be regarded as the quantitive expression of the power of a lens to project an image of a certain size. The equivalent focus of a lens may therefore be derived from the *size of the image* the lens will project, and the accuracy of the result depends solely upon the accurate determination of the size of this image. The writer has devised and will now describe a simple and practical method of determining the equivalent focus of a lens.

Place your camera, with the lens attached, in a room with two windows, squarely opposite the windows and at such a distance from them that the image of the two windows together — as a whole object — covers about three-quarters of the width of the ground glass in a horizontal direction. (The larger the image to be measured is, the smaller in proportion the eventual error of measurement will be.)

Turn the camera so that the two outer vertical bounding lines of the lighted parts of the windows, in the image right and left, are about equidistant from the center of the ground glass. Focus the two bounding lines sharply, better by the aid of a magnifying glass, and measure the distance of these lines on the ground glass accurately. Let us indicate this measure by the letter I. Then measure the real distance between the bounding lines themselves. This measure we will call O. Finally measure the distance from the diaphragm of the lens to the windows, or, rather, the length of a line perpendicular to the plane of the object and connecting the object with the diaphragm of the lens, and let us call this measure F. Now multiply F and I and divide the product by O, and the result, which we will name f, will be the *conjugate* of the front focus, which latter is equal to, or, in fact, is identical with F, and which two foci (f and F) are to be united to one common focus, that is, to the true equivalent focus of the lens. This is to be done by simply multiplying these two foci and dividing the product by the sum of them.

Suppose, for instance, F to be 14 feet or 168.0 inches, O 10 feet or 120.0 inches, and I 6.0 inches. Then the product of the multiplication of 168.0 (F) and 6.0 (I) will be = 1008.00, which, divided by 120.0, gives 8.4 inches as the *conjugate* focus, f. Now multiply 8.4 (f) with 168.0 (F) and divide the product, 1411.20, by the sum of 8.4 (f) and 168.0 (F), 176.4, and the quotient, 8.0 or 8 inches will be the equivalent focus of the lens.

RELATIVE APERTURE.

As is generally known, the relative aperture is as the equivalent focus divided by the diameter of the aperture and consequently the diameter of aperture is as the equivalent focus divided by the relative aperture. The real aperture, however, is not identical, and therefore is not to be confounded with the opening of the *diaphragm*. The image-producing light, before passing through the diaphragm, is *refracted* by the front lens in a concentrating direction, and, as a matter of fact, the degree of concentration *varies* considerably with the various types of modern lenses, according to the thickness of the front lens, the curvatures of its surfaces and the refractive powers of the glasses of its components, and, owing to these variations, the opening of the diaphragm cannot be identical with and substituted for the real aperture of the lens. *The real aperture of a lens is as the (circular) area on the front surface of the front lens, which the light occupies that passes through, and just fills, the diaphragm.* The equivalent focus is to be divided by the diameter of *this* area to obtain the true relative aperture. A simple and sufficiently accurate method of measuring the diameter of this area is as follows:

Focus the lens, at full aperture, on the ground glass, from a remote object. Then remove the ground glass and replace it by an opaque paper sheet, with a round hole in the center about one-quarter inch in diameter. Cut a strip of dark or black paper with straight parallel edges, a little wider than the diameter of the full opening of the diaphragm, and fasten it in front of the lens, in a vertical direction. Then looking through the hole in the paper at the back of the camera toward the lens, the paper strip should appear to just shut off the light on both sides of the aperture. If too wide, cut the strip a little smaller; if too small, cut a new strip a little wider, and so on until the

BY EDWIN R. JACKSON, OAKLAND.

SOCIETY GOSSIP.

strip has just the width to shut off all light, leaving only a trace of light to be seen on either side when the eye is moved a little right and left. The width of this paper strip is just equal to the diameter of the full aperture of the lens, and is *always wider* than the diameter of the full opening of the diaphragm. (On an Anastigmat lens made by the writer, the diameter of the *full aperture*, measured in the manner described, is 1.5 in., while the full diameter of the diaphragm is only 1.2 in.)

Now, taking the foregoing case, where the equivalent focus was found to be 8 inches, and suppose the width of the paper strip, or the diameter of the full aperture to be just 1 inch, then 8 divided by 1 is = 8 or f/8, which will be the true relative aperture of the full opening.

Next to this let us find the opening and position of the diaphragm for f/16. For this purpose cut another strip of paper accurately half the width of that for f/8, fasten and adjust in front of the lens, and then, looking through the hole in the paper in the back of the camera towards the lens, turn the diaphragm down until the paper just shuts off all the side light; then you have the right opening and position of the diaphragm for f/16.

For f/32 and f/64, proceed as before, cutting each following strip just half the width of the foregoing.

To find the *intermediate* apertures, use the proportion 41 to 29, which is nearly correct, sufficiently so for the purpose and easy to handle. Find all the *numbers* first before cutting the paper strips for measurement, starting from the smallest aperture, f/64, and say: 41 is to 29 as 64 to x; 64 x 29 = 1856. This product, divided by 41, is = 45, or rather 45.2, which is the intermediate aperture between f/64 and 32. For the next larger one, between f 32 and 16, divide 45.2 by 2, which gives 22.6. This divided by 2 again gives 11.3 for the aperture between f/16 and 8.

Now derive the *diameter* of the aperture for f/11.3 from the diameter of the largest aperture, f/8, which let us suppose to be 30 millimeters. Use the above proportion again and say: 41 is to 29 as 30 to x, which is = 21.2 millimeters. Cut a strip of paper 21.2 millimeters wide, fasten in front of lens as before and find the opening and position of the diaphragm for this width of paper strip in the manner as before, and so on down to f/45.2.

ANGLE OF FIELD.

The angle of field is usually derived from the diameter of the circular field of the light the lens is capable of throwing upon a screen situated in the plane of the focus of the lens, the *radius* of this circle being the *sine* and the *equivalent focus* being the *cosine* of the *semi-angle* of field of the lens. The *available* angle of field of most lenses, however, is made smaller than this, and the writer holds that the diagonal of the plate the lens is intended to cover should be considered the proper diameter of the circular field of the lens. The proper way of determining the angle itself is by trigonometrical calculation, of course. In accordance to the object of this article, however, to avoid mathematical calculations, the following method of direct measurement is proposed:

Take a sheet of machine-cut note paper of large size. Transfer the measure of the equivalent focal length of the lens to one of the long sides or edges

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SNOQUALME FALLS.

of the paper by starting at one of the corners and making a mark a distance from the corner accurately representing the equivalent focal length. Then transfer in the same manner, and measuring from the same corner along the short side, just one-half of the length of the diagonal of the plate the lens is to cover, measuring the distance between two opposite corners, and mark accurately. Draw a straight line from mark to mark and measure the *angle* formed by this line and the *long* side of the paper, in degrees, by means of any suitable tool or instrument made for measuring angles, for instance, such as come with most sets of drawing tools. Double the number of degrees of this angle and you have the angle required by or enclosed by the size of the plate.

For the purpose of testing and of finding a numerical valuation of the photographic qualities of the lens, the *sine* of the *semi-angle* of field will be required rather than the angle itself, and to find this sine, or, rather, a suitable multiple number of the same — in order to suit the special object of this article — as a substitute for the real sine, and which we will call hereafter the "substituted sine," in a practical manner and without calculation, the same paper sheet as prepared for the measurement of the angle of field, may be used proceeding as follows:

Write the measure, which was marked on the *short* side of the sheet, in inches with one decimal, and add five ciphers to the right but omit the decimal point, and then divide this number by that which gives the length of the oblique line connecting the two marks, in inches with one decimal, omitting

the decimal point. For instance, let the *short* side measure be 4.7 inches and the oblique line 10.2 inches, then 7.4 with five ciphers added to the right and the decimal point omitted will be 4,700,000. Divide this number by 102 and the quotient will be 46,078. This will be our "substituted sine," of which we shall make practical use later on.

Having thus obtained the true equivalent focus of the lens, the relative apertures from the largest to the smallest, and the angle of field for the plate used, we are now ready to critically test our lens and to find a numerical value as a resultant of the several qualities for comparison.

SHARPNESS OF IMAGE.

The examination and judgment of the sharpness of the image on the ground glass is in a great measure a matter of individuality, and little can be said as to how this examination should be performed. A good, well-trained eye is perhaps better than any special rules that may be given to attain a reliable and valid judgment. It may be said, however, that the critical eye should direct its attention particularly to the *marginal* parts of the image. The central part is usually as sharp and clear as may be desired, even with low grade lenses, since it is an easy matter, optically, to correct the aberrations in the direction of the optical axis. But it is characteristic of the high grade photographic lens that the aberrations of the *extra-axial* pencil of light are equally well, or nearly so, corrected to a comparatively wide angle of inclination to the axis. This is especially the case with the modern Anastigmat lens, where the angle of correction has been so greatly increased that even at a considerably wider angle of field than that of ordinary lenses, the marginal parts of the image appear to be free from astigmatism even at a very large aperture.

Notwithstanding the fact that the angle of correction of other older types of lenses is considerably smaller than that of the Anastigmat lens, such types, especially the so-called rectilinear, possess advantages and virtues which qualify them as high-grade lenses. It is well known that under certain conditions sharper and better landscape and other pictures may be obtained with a good rectilinear lens than with an Anastigmat, and in gallery work, where the angle of field as required is comparatively small, the rectilinear or similar lenses, constructed especially for this class of work, hold their own.

The extent of angular inclination to the axis, to which the aberrations are corrected, is therefore of superior importance in the test of the sharpness of the image, and particular attention is to be directed to the marginal parts of the image, and the diaphragm is to be carefully adjusted in order to find a certain *maximum of aperture* the marginal parts will allow without showing a disturbing degree of astigmatic distortion. The following method will serve to facilitate greatly the finding of a certain point or opening of the diaphragm, at which a just allowable degree of astigmatism is present and not more.

Find a suitable object, such as a building or a window with well-defined horizontal and vertical outlines, and focus sharply in the center of the ground glass, at full aperture. Then turn the camera to one side until the image of the window nearly reaches the margin, and examine the horizontal lines of the window *separately* from the vertical lines. If the lens is a rectilinear (not

Anastigmat) lens, and if properly adjusted in length, it will be found that the horizontal lines are much blurred, while the vertical lines may appear to be fairly sharp.

Now turn down the diaphragm gradually until the horizontal lines have cleared up well enough, so that in combination with the sharp vertical lines the image of the window appears clear and undistorted. Notice the position of the diaphragm, and then by repeatedly starting each time with a large aperture and turning down gradually to find the most favorable point, or, rather, the *maximum* aperture of marginal definition, taking the medium of the trials as the maximum aperture of defining power. This being accomplished, the next to be done is to determine the *angle of field* at which this maximum aperture is attained, in order to derive a certain *numerical value* from the relation of these two factors to each other.

The advantages and value of this method of drawing a certain general conclusion in the form of a *number* from the results of the tests of the several properties of the lens, may be best demonstrated and clearly understood from the following example:

Suppose two lenses were to be tested and compared with each other, both being intended or made to work on the same size plate, say 5 x 8. The equivalent focus of one of them, which we will call No. 1, we will say is 8 inches, and its maximum relative aperture of defining power is f/16. Let the equivalent focus of the other lens, No. 2, be 10 inches, and its maximum aperture of defining power be f/14. The lens No. 1, although working at a *smaller* maximum aperture than lens No. 2, works on the same plate with a *much shorter* equivalent focus and with a correspondingly *wider* angle of field on lens No. 2. If for the test of No. 1 the size of the plate were reduced in the proportion of the equivalent foci of the two lenses, then its angle of field on the plate would be equal to that of No. 2, and the lens would certainly have to have a larger maximum aperture for equal marginal sharpness of the two images than that obtained by the test on the full-size plate, and the case may be that the maximum aperture of defining power then proves to be even larger than that of No. 2.

It is, therefore, not the relative aperture alone which determines the degree of defining power of the lens, but the *angle of field*, also, at which this aperture is attained, is to be taken into account. This is properly done by finding or fixing a certain *number* as an *exponent* of the two factors, which designates the comparative value of the defining power of the lens. Properly, the sine of the semi-angle of field and the *reciprocal* of the relative aperture since the numbers by which the apertures are conventionally designated are *inversely* proportional to the diameters of apertures, are to be multiplied with each other. In accordance with the object of this article, however, the writer devised the following method, which will answer the purpose satisfactorily:

Let us first find the "substituted sine" of angle of field, for the lenses, in the manner described above, under the head "Angle of Field," using the same paper sheet as before. Since both lenses are presumed to be intended for, and were tested on the same size plate, 5 x 8, the same measure on the *short* side of the paper sheet, which is equal to the semi-diagonal of the plate, and which in the present case is 4.7 inches, and already marked on the paper, is to be

used for both lenses, and only the measure on the *long* side, the equivalent focus, is different with the two lenses. Taking the lens No. 1 first, we transfer the equivalent focal length of this lens, which is 8 inches, to the long side of the paper, in the same manner as before, and measure the length of the oblique line connecting the two marks, which will be found to be 9.4 inches. Now, adding five ciphers to the number 4.7 and omitting the decimal point, we have 4,700,000, the same as before. This number divided by 94 will give us 50,000 as the "substituted sine" of the angle of field of lens No. 1, and we only divide this sine by the maximum aperture of defining power, which is 16, and the quotient 3125 will be the desired exponent of the two factors, the maximum aperture and the angle of field.

Now transfer the equivalent focal length of lens No. 2, which is 10 inches, to the *long* side of the paper sheet, and the length of the oblique line connecting the two marks will be 11, or 11.0 inches. Dividing 4,700,000 by 110 will give 42,727 as the "substituted sine," and this sine divided by the maximum relative aperture of defining power of this lens, 14, will give 3052 as the exponent, which is *smaller* than that of lens No. 1, although the maximum aperture of lens No. 2 is *larger* than that of No. 1. Hence lens No. 1 would be of a higher grade than No. 2 if the maximum aperture and the angle of field were the only factors of the numerical value of defining power. Before fixing a finally valid number, however, we will have to take another important factor into account.

EVEN LUMINATION.

The most common and serious defect in photographic lenses is their lack of even lumination, or their unequal distribution of light over the field, and few may be aware of the fact that even the best lenses, while being of a high degree of perfection in every other respect, leave very much to be desired in this respect.

The following interesting experiment, though not being suited as a means for testing and determining the *degree* of evenness of lumination, may well serve as a *demonstratio ad oculus* of the seriousness of this defect.

Direct your camera northward to the blue, cloudless sky, high enough to secure evenness in vertical direction. See that a suitable object, such as the top branches of a tree, reaches into the field sufficiently to facilitate development of the exposed plate, since a perfectly formless image cannot be well controlled in the developing process. A lens of a moderate angle of field, such as a "rectilinear," is preferable. Use a slow plate, if possible, and make a *rapid* instantaneous exposure at *full* aperture. A ray filter in front of the lens will afford valuable aid. Provide for a *slow* development of the plate, using bromide liberally. The result will be self-speaking.

The cause of the defect of uneven lumination is the smallness in diameter of the lenses which can hardly be made larger than they are, owing to the short curvature of their internal, cemented surfaces.

The different types of lenses vary considerably in the degree of evenness of lumination, and the test of a lens cannot be considered fair and complete without due regard to this property. The following will be found to be a reliable method of determining the degree of evenness of lumination:

Focus a remote object sharp on the ground glass, then look toward the lens to one of the openings left on the corners of the ground glass for escapement of air. At full opening of the diaphragm, the aperture of the lens will appear to be of a shape far from being circular, being considerably cut off from both sides, from one side by the dark mounting ring of the *front* lens, from the other side by that of the back lens. Now turn the diaphragm down until its full round opening is seen, without being cut off on either side, and you have the *maximum relative aperture of even lumination*, as indicated by the position, respectively the graduation of the diaphragm. This maximum of opening varies, however, with the angle of field, and will, for instance, prove to be correspondingly *smaller* if the experiment is tried with a larger plate on ground glass, and as a consequence, its relation to the defining power of the lens is such that the value of this power is to be corrected in accordance to the value of even lumination. If, for instance, the lens No. 1 of the foregoing example has a *smaller* maximum aperture of even lumination than No. 2, then its marginal defining power is attained at the expense of the marginal lumination, *in a greater measure* than that of lens No. 2, and the case may be that, if the power or degree of even lumination is properly taken into account, lens No. 1 will prove to be even *inferior* to No. 2, while, without this regard, it appeared to be the better one of the two.

Therefore it will be necessary to make the maximum aperture of even lumination a *third factor* in the numerical determination of the defining power of the lens. This is to be done by dividing the exponents obtained for the two lenses by their respective maximum apertures of even lumination.

Supposing these apertures to be f/20 for lens No. 1, and f/18 for No. 2, then the exponent of No. 1, which is 3125, divided by 20 will give 156, and the exponent of No. 2, 3052, divided by 18, will give 169, which two quotients may now be regarded as the *comparative numerical values of the defining powers of the respective lenses.*

According to these results, it appears now that the quality of the lens No. 1 is really inferior to No. 2, owing to its low degree of even lumination.

CORRECTION FOR ACTINIC LIGHT.

It is essential to the photographic quality of a lens that the chromatic aberration be corrected for *actinic* light. If corrected for visual light, the focus of the photographically most powerful light or part of the solar spectrum, the violet and ultra-violet rays, will be *longer* than that of the visual light, and the image of an object, when focused sharp on the ground glass, will be photographically *out of focus*, and consequently the picture will be lacking sharpness. For this reason it is indispensable to test the lens photographically by making a negative. In case the lens is not properly corrected for actinic light, and, as a consequence, the negative should appear to be not as sharp, at the maximum aperture attained before, than as it appeared on the ground glass, a new photographic trial will have to be made at a *smaller* aperture, and this will have to be repeated until the photographic picture presents the required degree of sharpness. Thus the maximum relative aperture of defining power, as determined on the ground glass, is accordingly reduced, owing to the imperfect correction of the chromatic aberration.

TWO INTERESTING PICTURES.

BY LA ROCHE, SEATTLE. "THE MIDNIGHT SUN."

The two pictures on this page are the most remarkable yet submitted to CAMERA CRAFT for publication and serve to show the interest felt in the success of the magazine by the photographers of the continent. One comes from the frozen wilds of the Yukon, while the other is sent from the sunny land of Mexico. The first picture is by Frank La Roche and was made at midnight during his last trip to Alaska. It gives some idea of the glory of the midnight sun. The lower picture is by Senor J. P. Arriaga, one of the most prominent Mexican photographers, and is probably as difficult a piece of group posing as one would find in a day's travel.

BY SENOR J. P. ARRIAGA, CITY OF MEXICO. "EL HIMNO MEXICANO."

PICTURES OF THE ECLIPSE.

By Frederic Mylius, the Personal Representative of Camera Craft, with the Lick Expedition to Georgia.

Thomaston, Ga., June 4th — "Very narrow escape. Success." Such was the message sent to the Royal Observatory of Leyden, Holland, by Professor Wilterdink of the Leyden University from the Lick Observatory camp on the morning of the eclipse, and, all things considered, it was a concise summing up of the work of the California party. Whether the success be great or only nominal will not be known for many weeks, possibly months. At present the camp of the scientists is a quiet scene. It wears the appearance of a circus ground from which the glitter and gaudy show has passed, leaving only the bare poles and the fragments of the glory that has been. Professor Campbell and Professor Perrine are now hard at work developing the forty-two negatives secured, and will not complete the work for several weeks. Because of the extreme heat in the day the work is carried on at night. The dark room is the only structure on the grounds having anything like a permanent appearance. It is constructed of grooved flooring and is covered on the inside with pitch paper. Two stovepipes furnish ventilation, and a barrel on the outside holds plenty of spring water for washing purposes.

The extreme care used in developing the plates is little short of marvelous. The developer is mixed with distilled water and only used after careful tests. The developing agent used is hydroquinone of medium strength. The developing process is carried on extremely slow, some of the plates being in the tray for half an hour. Ice is used to keep the temperature of the dark room at 65° Fahr.

Not until Mt. Hamilton is reached will the definite results be known. There are no facilities for printing in Thomaston, and while Velox is used on the minor prints, a special paper giving finer detail will have to be procured for the larger negatives. After the observatory is reached prints will be made from all of the negatives, and then the real work of the scientists will begin. Observations will be compared and verified, the record of each plate studied separately, and the cause of the event happening eight seconds before the

BY GARDNER, THOVASTON. GENERAL VIEW OF THE CAMP.

BY GARDNER, THOMASTON THE LICK PARTY AND THEIR GUESTS.

computed time will be ascertained. Absolutely nothing will be given to the scientific world until everything is completed and the finished photographs are in hand to verify the statements made. The photograph accompanying this article is the only one given out by the expedition, and it will probably be several months before the most interesting of the pictures are made public.

Many descriptions of the eclipse have been written, but it is doubtful if any of the word pictures conveyed an adequate idea of the narrow escape made by the Lick observers. The morning of the eclipse dawned as thousands of others had dawned before. A bank of clouds in the east at first gave some apprehension, but this was dissipated as the clouds slowly dissolved. The astronomers added the finishing touches to the arrangements completed days before, and a brief wait followed. Short, white cirrus clouds from the southwest began to gather and move directly toward the sun. As the predicted time drew near, Professor Campbell gave the command "Stand by," and every man was at his appointed post. Then came the order, "Start the clocks," and the real work of the observers was on. During this time the moon had been steadily encroaching upon the sun and was nearly a complete mask. The atmosphere darkened, the air grew cooler and the rush of the oncoming shadow was indicated by a slight breeze caused by the contraction of the air deprived of the sun's rays. The clouds seen earlier in the morning again became a prominent factor and the tension was strained. The clouds began to pass

BY PROF. G. D. SWEZEY, U. OF NEB.
PHOTOGRAPHIC CREW AT WORK.

over the sun, while but a few moments remained before totality. For fully thirty seconds the drifting vapor hid both sun and moon, but then came salvation. Just as the second contact was on the shadows passed away and the man at the chronometer shouted "Go!" and began to count the seconds, 0, 1, 2, 3, etc. The first flash of the corona was seen, and every man was carrying out his allotted share of the program. Scarce had one had time to appreciate the fullness of the contact before a sudden glare and shouts from the astronomers announced the fact that the third contact was on. With inconceivable suddenness a mass of light of dazzling brilliance leaped from the sides of the sun. It reached the earth and the shadows changed from crescent shape to their usual appearance. The cirrus clouds again made their appearance and hid the fourth contact, but the observation was a success. A few seconds either way and the little string of cirrus clouds would have rendered nil the months of preparation and care exercised by the astronomers. The escape was indeed a narrow one.

THE FIRST EXPOSURE. MADE WITH THE 5-IN. FLOYD BY PROF. NYLAND OF UTRECHT UNIVERSITY, HOLLAND.

The only members of the party who had a full opportunity to enjoy the eclipse were Professor Buchanan of Tennessee and Professor Lumsden of Canada. They were the only ones who made visual observations covering the direction of travel, rate of speed and the color and width of the shadow bands. Sketches were made of the shadow waves on sheets stretched on the ground, and free-hand drawings were also made of the corona. Professor Buchanan, through the assistance of a device invented by himself, projected the eclipse on a target arrangement marked so that the center of the rays fell in the bullseye. By this arrangement measurements and calculations were made of the streamers in the corona.

None of the other astronomers could devote much attention to the beautiful sight, sacrificing that pleasure so that not a second of the precious eighty-five should be wasted. The accompanying table of exposures will give an idea of the rapidity with which the photographers moved. Only once did the machinery get out of order. The clock on Professor Campbell's instrument stopped a few seconds, and only three exposures were made instead of four.

Otherwise the plans of the observation were carried out in perfection. The table below will give some idea of the work performed during the limited period of totality. When the time consumed in changing plates and drawing slides is taken into consideration, the rapidity of the work can be appreciated.

INSTRUMENT.	EXPOSURES.	OPERATOR.
Large forty-foot telescopic camera	First and second, one-half second; third, two seconds; fourth, six seconds; fifth, sixteen seconds; sixth, eight seconds; seventh, two seconds; eighth, one second; ninth, one-half second.	Prof. Perrine and assistants
One slitless two-prism spectograph	Continuous registry of crescent corona and crescent at the second and third contacts, from twelve seconds before until one second after totality.	Prof. W. W. Campbell
One two-prism spectograph	Exposed during totality for corona alone.	Prof. W. W. Campbell
One three-prism spectograph	Exposed during totality for corona alone.	Prof. W. W. Campbell
Five and one-half inch Willard lens, photographic telescope	Four exposures of four, eight, twenty eight and four seconds during totality	Prof. John A. Miller, University of Indiana
One slitless grating spectograph, 43,000 lines on three inches of length	Continuous record of the green spectrum of the sun's edge at the second contact, and of successive phenomena on one plate.	Prof. Wilterdink of the Leyden Observatory, Holland
One Floyd photographic telescope, five-inch lens	Six exposures of three, six, three, eight, one and twelve seconds, for corona only.	Prof. Nyland, Utrecht University, Holland
Portrait camera, focal length 37-100 centimeters	Exposed during totality	J. R. Atwater, Thomaston, Ga.
Three Holland cameras of different focal lengths	Exposed during totality	J. R. Atwater, Thomaston, Ga.
One six-inch Dallmeyer lens, photo telescope, thirty-three inches focal length	Used to search for the inter-mercurial planet, six exposures of three and eight seconds east, west and in the corona	Prof. H. D. Curtis, San Jose, Cal., and Prof. Russell of Lincoln University, Ill.

The chronometer was in charge of Dr. E. T. Booth of Thomaston, Ga.

A REPRINT OF "THE COBBLER."

The great demand for copies of Charles Weidner's picture, "The Cobbler," printed in the May issue of CAMERA CRAFT, has rendered it necessary to make a reprint of the picture. This has been done on heavy plate paper, suitable for framing. Those desiring a copy can obtain it by sending five cents to prepay postage.

THE POSE AND LIGHTING.

By Frederick V. Adams.

Position, they say, is everything in life. Position in a photograph, if not everything, is certainly of great importance. It is the pose of a picture that first attracts and then rivets the eyes of the critic while he seeks to find and analyze the secret of its fascination. Stop to consider how much of sentiment and feeling is displayed in the picture by the pose. If the pictured pose does not bespeak something of the story it attempts to tell, it is valueless. How many of the amateurs and professional photographers rely upon after processes in making their pictures to the neglect of position. Why should not the picture of baby, the pet of the household, be the personification of innocence or mischief, whose roguish smile portrayed in the picture would delight him in after years? Why should not the picture of the maiden bespeak grace, ambition and future hopefulness? Does not the pose of nature tell its story? Must we look further? True it is that the other attributes of the picture, the lighting, expression, costume and background will fill in and supply the details of the human-interest drama, yet from the pose alone can we read the synopsis and the plot.

The secret of success in photography is the ability to grasp the opportunity, however fleeting it may be. The mind must act and the shutter must snap with that instinctive appreciation of beauty dormant in everyone's eye. Let the subject walk leisurely into the space before the camera. There he will naturally assume a pose more or less characteristic. It may not be complete in the fullness of its photographic beauty, yet it is the nucleus from which the operator can, with a few modifications, change into a posture full of meaning, life and action. Some subjects, being naturally mobile and full of grace, almost unconsciously take pose after pose that needs no correction from the operator. In this case the work of the operator lies in selecting the most likely point of view, ever having in mind the perspective and harmony of outline. Avoid pose making. Let the subject do the posing. Do not treat the subject as if he or she were an automaton, but impart an intelligent idea of the pose you wish, and let that pose mean something.

The next consideration is the lighting, that subtle influence which so enhances the beauty of the pose that we have a photographic symphony which appeals to the soul as do sweet strains of music. In photography, as in nature, the light should come from one source even as the sun sends its mystic rays to tone all nature in roseate hues. So should we in our treatment of the subject direct our light from one important source — subduing and controling all others. By this means we obtain that perfect blending of light and harmony which produces the poetic sequence of the whole. It is not my province, however, to say how this light handling may best be effected. There are many ways, some of them good, others with but little merit. Experience and artistic feeling are the most reliable teachers in this as well as the other branches of photographic art. Let us, however, follow with strict fidelity the original and not be led aside by fads and impressions which have not the true virtue and spirit of the re-creative genius, remembering that great failures often surmount small successes.

THE CRITIC.

On this page will be printed each month photographs sent in for criticism. An attempt will be made to draw attention to the interesting as well as to the weak points of the picture so that it may prove valuable and instructive to the amateur. Send your prints.

BY FRANK HOGLE. A SUNSET SKY.

Print No. 29 is a beautiful example of a cirro-cumulus sky and its reflection in water. It has a fair range of gradation, and the tree on the bank in its spring foliage is very good. The cloud reflections in the river are notable in that they exhibit a much finer gradation and better relief than the original in the sky. This is particularly evident if the picture is inverted and the reflected portion viewed as the real image. As a composition it cannot be said to have much pictorial value. With the horizon line dead in the center, and the tree equally centrally placed, and bisecting it at right angles, it violates the principles of composition. Had it been taken more from the side, so as to give a sweep of distant river, or had it been possible to obtain a boat, floating log or driftwood, to sustain the foreground, the result might have been different. Were I seeking to obtain the best pictorial effect from this print I would turn it upside down, cut off the real sky and mount the reflected portion as a spring evening. Try it.

The marine views sent in by H. I. J. show great appreciation of the beauty of the northern coast, but are faulty in that the shutter was snapped before the rollers had time to break. Wait until the waves have fully broken and the spray is well in the air before snapping.

MISSION SAN XAVIER DE BAC.

By Harry Putnam.
Illustrated by the Writer.

"AT A ROADSIDE WELL"

LEARNED writers of the East, commenting upon the absence of material for the Great American Novel, have said that the civilization of the New World is too recent and too prosaic to build great fiction upon. They complain that the passions of the human heart play no part in the history of America, and that a sense of newness and rawness confronts the searcher for romance. Yet, closely interwoven in the history of the West is the foundation for a score of great novels. The mysterious atmosphere pervading the remains of Spanish civilization in the United States is as full of romantic interest as any that clings to the Old World, and as new to the American people as it is to the critics who decry the lack of material for American fiction.

Nine miles from Tucson, Ariz., in the midst of a people whose legends and quaint sayings belong to another world, lies the Mission San Xavier de Bac, one of the best preserved of western missions. It was one of those sleepy, dreamy Sunday mornings in December, such as fill the visitor to Arizona with wonderment, when we left Tucson for our first sight of the mission. Our cameras carefully packed in the bottom of the wagon, we gave our full attention to the beauties of the

"THE MISSION IN THE DISTANCE."

morning. Giant cactus loomed up on every side, and an occasional lizard left a bright streak across the dusty road. As the way grew longer our feelings underwent a change and we could almost imagine that we had crossed the line and were in the heart of Mexico.

Suddenly there came drifting across the sultry plains the chime of bells — silver bells from the foundries of sunny Spain, packed from the City of Mexico over the many weary miles by Papego Indians a century ago. The hurry of the world behind us was forgotten, and the queer, Old World feeling that swept over us left us in that peculiarly sentimental stage where all desire for motion was gone — the horses stopped and we listened. Sweetly the ever-changing tones of the bells quivered upon the air, and then, full suddenly as they came they were gone, and we continued our onward way. Passing around a little knoll, the mission lay before us. At a roadside well a number of women dressed in the semi-Mexican costume of the country stood idly gossiping. They gazed at us curiously, and silently allowed us to make our first picture. Their posing was perfectly natural, but we could see that they fought hard against the superstitious desire to run away. Womanly curiosity was too strong, and they gathered around us while we unlimbered our cameras and took a picture of the mission in the distance.

"SPANISH-MOORISH ARCHITECTURE."

Approaching the great building we halted the team and tarried a moment to admire the perfect condition of the walls. A century of burning summer sun had hardened the stucco work to adamant and given it that indescribable appearance of medieval grandeur so evident in the old Spanish-Moorish architecture. Entering the cool interior we were suddenly taken with the same feeling that caused us to pause but a short while before. From the high altar the priest intoned the mass in melodious Spanish to a strange congregation kneeling on the bare ground below. A dim, religious light filtered through the mullioned casements of the small windows and lit with gaudy hues the serapes and rebosas of swarthy Mexicans kneeling beside brown-faced and bare-footed Papegos. Stray beams of sunshine picked out striking bits of the sculptor's work and brought into bold relief the

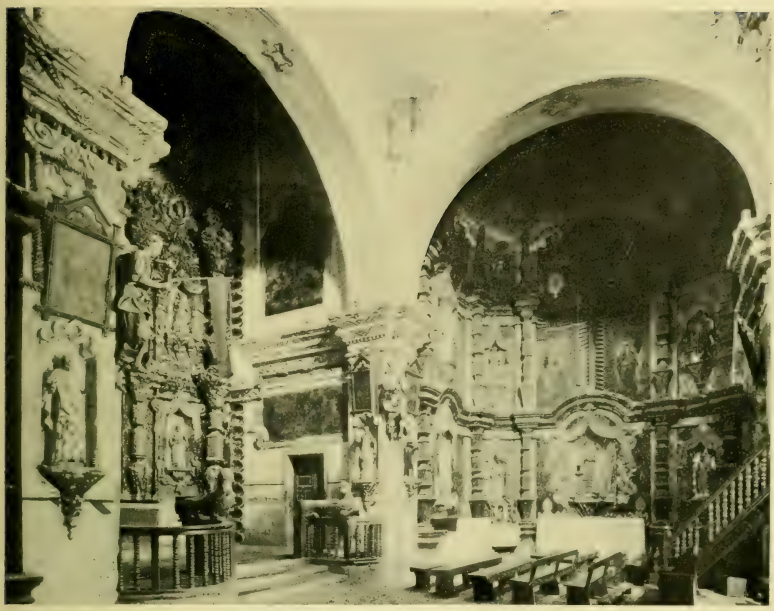
profusion of statues and paintings that hung everywhere. Apart from the worshiping throng, naked Indian children and village curs rolled together upon terms of perfect equality.

Instinctively we knelt with the strange gathering and listened to the soft words of the priest. The feeling that inspired us was the same that overmasters the lover of nature confronted by some one of God's masterpieces. Under that great roof thrown across the giant walls before our ancestors first crossed the plains, we felt our insignificance, and could only offer our homage to the Supreme Being in reverent silence.

Slowly we arose when the service was ended, and waiting for the congregation to disperse, gained permission to photograph the interior. It was a peculiar feeling to us when we stood our cameras before the gilded altar dedicated to St. Frances Xavier and snapped the shutters. Later we persuaded the Sisters of St. Joseph, who were in charge of the school adjunct to the mission, to allow us to photograph their pupils. The boys and girls were marshaled in front of the big white building, and for the first time many of them faced the camera. There were nearly fifty of them and their bright little eyes shone with an inquisitive light during the operation which meant little to them but much to us.

We returned to Tucson in the evening light filled with the romance of the trip. Although it was years ago, the memory of the people of the mission is

"FOR THE FIRST TIME MANY OF THEM FACED THE CAMERA."



"THE GILDED ALTAR OF ST. FRANCES XAVIER."

still fresh, and when the learned men of the East begin to carp upon the lack of color and romance, the thought of the old mission awakens, and then comes a feeling of pity for those who have not lived to see its beauties.

CAMERA CLUB CHANGES.

On the first of July the Photographic Art Club ceases to exist and the California Camera Club roll is increased by the addition of some fifty names. The amalgamation of the two clubs was perfected during the past month in a quiet manner and to the satisfaction of everyone concerned.

Although the Photographic Art Club has been considered one of the most enthusiastic bands of workers on the Coast, the financial affairs of the organization became uncertain and the officers were troubled as to what course to pursue. At this juncture the Board of Directors of the California Camera Club passed a resolution inviting the members of the Art Club to join the older organization in a body, with the privilege of waiving the initiation fees. The invitation was accepted and clubs were joined late in June.

The opinion of all interested in the work of the two organizations is that the move will prove to the mutual advantage of every one. The California Club becomes possessed of a number of willing and earnest workers, while the new members are given the benefit of surroundings and equipment which they would not have otherwise enjoyed.

"BALD-HEADED" LANDSCAPES.

By W. G. Woods.

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LAND'S END.

THE man who dubbed a picture in which the sky was represented by white paper as a "bald-headed landscape" did well and deserves to be considered as a critic of note. Many of us have wished that a favorite picture contained a few clouds, but in this land of sunny days it is seldom that favorable conditions prevail when we wish to catch a dainty bit of landscape with a clouded sky. When we go again the clouds are there, but the delightful effect is gone. However, the amateur who wishes to do something better than "bald-headed landscapes" can experiment in printing in clouds in a cloudless picture by making a number of cloud negatives. For this purpose Cramer's Medium Isochromatic plates and a ray filter are the best materials to work with.

Select the high flying and dainty varieties, especially the long, stringy mare's tails of the afternoon. Avoid the horizon clouds as well as the heavy cumulus clusters. Get well up in the air to avoid the tops of trees or buildings and take pictures from all directions so as to get a variety of lightings. With an Iso. Medium plate and an ordinary landscape lens and Unicum shutter the average exposure with the ray filter, using 64 stop, will be 1/100th of a second. Develop with dilute developer and do not carry development as far as for ordinary exposures, as the cloud negative should be thin in order to print quickly.

Having secured the cloud negatives, the next thing is to use them on the "bald-headed" pictures. If your landscape negative has a good, dense sky, no doctoring will be necessary other than to spot out pin holes or dust spots with a sharp-pointed brush and opaque or water color, but should the sky be so thin as to fail to print out white when the landscape is printed, something must be done to make it do so. This may be done in two ways: *First*, by masking; *second*, by blocking or tinting out the sky with opaque or water color.

For the first method hold the negative up to the window, and on a piece of tissue paper trace out the horizon line roughly. No care need be taken to follow the outline of trees or other pronounced objects, but the mask must be so cut that the top half will not cover up trees or other objects projecting into the sky line. Now lay this tracing on a piece of opaque paper and cut out both, leaving the opaque paper somewhat larger than the negative. The negative is now printed and the sky shielded with the top half or sky mask,

taking care to keep it moving so that a sharp line is avoided. This will result in the sky appearing as a blank, and necessarily results in the operator sitting in the sun and shielding the negative until it is printed, if a printing out paper is being used.

By the second method or blocking out, the sky is covered or blocked out with water colors or opaque to any extent necessary. Any of the red or yellow aniline colors will answer nicely for this purpose, graduating the tint from the horizon to the top of the negative.

Now take your cloud negative and place it in a printing frame several sizes larger than the negative and provided with a clear glass. On this place your landscape print, bringing the clouds in proper position, having, of course, selected a cloud negative that will harmonize with the light and shade of the picture. Then dodge or shade the landscape portion and print in the clouds, using the lower half of the mask to shield the landscape portion. Keep the mask moving so as not to show a sharp line but a gradual blending, and do not print the clouds too deep, as a mere suggestion of light clouds is oftentimes more pleasing than heavy masses.

In printing Velox or other developing paper where no image shows, it is necessary to make a pencil mark at each end of the print, showing the horizon line as a guide for the mask shielding the landscape. In this work, where printing is done quickly it is hardly necessary to use a frame, as the print may be placed on the cloud negative and held in contact in the hand while the dodging is being done. The exposing of clouds on developing paper should be done at a further distance from the light than ordinary printing is done in order to give the thin cloud negatives time to blend into the other. It often happens that water in the foreground has the same bare paper look. In such cases cut a mask to shield the balance of the print, reverse the cloud negative and you can easily put in the reflections of the clouds above. This should be done to a nicety and by no means strong enough to attract attention, but just enough to take away the bare look.

ORTHOCHROMATIC PORTRAITURE.

F. I. M.

In portraiture, photographers have given little attention to the orthochromatic plate, but the progressive student in the art-science of photography must recognize the great value of a process capable of rendering correct color values.

It is astonishing that so few members of the profession have taken up orthochromatic portraiture, and but little cause for this antipathy can be found. There are certainly no difficulties attending their use. They are just as rapid and simple in manipulation and certainly give the retoucher far less work than the ordinary plates. However, the use of the orthochromatic plate is steadily increasing, thanks to the amateur, and there are several studios in the East that use them exclusively and with most satisfactory results.

Except under exceptional conditions, such as costumes of brilliant and

contrasting colors, the ray filter or color screen can be dispensed with altogether, and it will only be necessary to screen the side light with some bright yellow semi-transparent fabric, such as cheese-cloth, so that the subject is bathed in a yellow glow of light. This gives practically the same effect as if a light color ray filter is used, but with the additional advantage that the curtains can be arranged so as to throw white or yellow light just where wanted.

In using orthochromatic plates for portraits or groups by flashlight, a softness and more perfect rendering of color values is obtained by interposing a yard or two of yellow cheese-cloth between the source of light and the subject. Perfect orthochromatism has not yet been attained, nor if it were would it always be desirable. We know the object of the ray filter is to depress or subdue the overactive blue rays, and in conjunction with the color-sensitive plate to give a correct record in monochrome of the relative color contrasts as seen by the eye. It is only necessary to use the ray filter when the violet and blue rays have so pronounced an action upon the sensitive film that their representation is out of true proportion to the effect of the color value as seen by the eye. Great care must be exercised in securing the proper color density in the bichromate of potash cell or ray filter. If the solution is too strong in color, color effects are exaggerated and an unnatural and inartistic picture is the result. The standard solution supplied with the ray filter manufactured by Bausch & Lomb should be diluted two-thirds with distilled water. It will then give the proper rendering of color values for everything except extreme contrasts of colors. The orthochromatic plate does not possess as much latitude as the ordinary plate, and therefore requires more care in handling. But the extra care necessary in their manipulation is amply compensated for by the improved results obtained by their use.

One peculiarity of the orthochromatic plate is the fact that it exhibits the peculiar effects of underexposure in a more marked manner than the ordinary plates, and for that reason is thought to be less rapid. The reputed slowness of the color-sensitive plate is no doubt due to use with the ray filter. If used without a screen, Cramer's Instantaneous Iso plates will be found quite as rapid as the Crown.

It is a safe rule to give full exposures; in fact, a good negative can be developed from a slight overexposure which would be hopelessly lost if undertimed. The development of orthochromatic plates must take place in much less light than ordinary, but if the proper light is used it is astonishing how much of it can be used with safety. With Cramer's Instantaneous Iso plates a deep ruby glass covered with one sheet of orange tissue paper will be found "safe." Of course the plates should not be subjected to even this light unnecessarily, especially during the first stages of development, but shaded as much as possible by covering the tray with a piece of card. By using care in this respect, fog or veiling is avoided and clear, snappy negatives obtained. Development does not present any unusual difficulties and a rather weak developer gives better results than one of normal proportions. The addition of 5 to 10 drops of a 10% solution of bromide potassium is advisable.

WHAT THE PHOTOGRAPHERS SAY OF THE CONVENTION.

The convention idea struck a wave of popular opinion, and nothing now remains to be done except the preliminary steps towards permanent organization. Nearly every one to whom CAMERA CRAFT addressed a communication asking for an expression of opinion has replied, and a few of the first ones received are printed.

If any one has a practical suggestion to offer, let him not feel backward in sending it in. The numberless details connected with a great convention, together with the position of San Francisco on the map, make it necessary to formulate new ideas and methods. To make the convention a success, an effort will have to be made to get out of the rut of previous conventions in the East and to avoid their mistakes. Therefore let us have your ideas.

Here are some of the expressions from prominent photographers:

SOME LOCAL EXPRESSIONS.

I am impressed with the idea of a Pacific Coast convention. If it is held I will support it to the best of my ability.

Very truly,
CHARLES ALISKY.

A convention of photographers held in San Francisco would be of the utmost value to every one of the local workers and would afford an unequaled opportunity for the exchange of ideas and methods. We are heartily in favor of the movement.

Respectfully,
H. G. VAUGHN of Vaughn & Keith.

I would be glad to see the convention held in San Francisco. It would be a fine thing for the city and for the visitors.

Yours very truly,
CHARLES WEIDNER.

Five years ago I tried to organize a movement looking to the end which you have now set under way, but because of unfavorable conditions was compelled to abandon the plan. I think that the conditions are such at the present time to make the convention a possibility. It will most certainly receive my earnest support. Very truly,
LOUIS THORS.

Nothing would please us better.

Yours, etc.,
J. C. THOMAS of the Stanford Gallery.

OUT-OF-TOWN IDEAS.

I am only an amateur, but I certainly think your idea of forming a league of Pacific Coast photographers and holding the convention in San Francisco a good one. It should be done by all means.

Pendleton, Or. LEE MOORHOUSE.

The movement is a good one and should be encouraged. F. G. SCHUMACHER.
Los Angeles.

If the exhibition is held, which is a good idea, we shall try and have a few pictures on exhibition. C. E. JOHNSON.
Salt Lake, Utah.

Oregon is organizing a state association to meet in this city July 10th, and we will at once try and interest our association in the movement to hold a Pacific Coast convention. The head of our photo department, Mr. J. W. Tollman, would be pleased to make an exhibit at a salon. Yours truly,
Portland, Or. S. G. STADMERS & CO.

I am in hearty sympathy with the association idea, as I have been for some time, and will always stand ready to do my part in the good work of helping to promote the best interest of our profession. I am not prepared to say what I can do so early this year but have no doubt of being able to make an exhibit at least. Very truly,
Tacoma, Wash. A. L. JACKSON.

I will be pleased to render what assistance possible on my part to help your plan of a convention of the photographers of the Coast. It is undoubtedly a move in the right direction. We are away behind the eastern photographers in this respect, they having gained much benefit from such meetings. The national and state associations have done much to advance the standard of work and elevate photography in the eye of the public, and I hope you will be able to make a success of your project.

Very truly yours,
Los Angeles. GEO. STECKEL.

CAMERA CRAFT

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THE PROPOSED CONVENTION

Assurances from many photographers throughout the West indicate the popularity of CAMERA CRAFT'S suggestion in reference to a Pacific Coast convention. Desiring to find the consensus of opinion in the ranks of the real workers, CAMERA CRAFT has addressed a personal communication to over two hundred leading photographers asking for an expression of opinion. Out of the many replies received not one was unfavorable to the project, and all indicated a desire to see the movement under way.

The growing importance of the projected convention is clearly indicated by inquiries from eastern photographers asking for details. If the bare announcement that a Pacific Coast convention is "in the air" has such a result, what effect would a well-advertised convention and salon have upon the craft?

Let us talk the matter over thoroughly, digest the possibilities and proceed to work. It will take months to perfect the organization and attend to the preliminaries, and in the meanwhile, CAMERA CRAFT will gladly publish the sentiments of those interested.

THE PHOTOGRAPHER'S LIFE

The bed of the average newspaper photographer is not altogether one of roses and at times it becomes decidedly unpleasant. Mr. J. E. Hare, the *Examiner's* chief photographer, has been confined to his bed from the effects of an inoculation with the Haffkine plague serum injected during the height of the Chinatown plague scare. It will be some time before he can resume his labors.

Mr. Hare is not the only California photographer who has recently passed through a trying experience. Early in June Mr. J. W. Austin, desiring to obtain a choice view of the Seal rocks on the Santa Catalina islands, took a large camera and started over the hills for his destination. When night came and he had not returned his friends grew anxious and instituted a search for him. He spent the night on a cliff, coatless and without fire. He had followed the wrong ridge, lost his way, and when night came on was compelled to abandon his

camera. A heavy fog rolling in added to his miseries, and he dared not move, as the ledge on which he stopped was so narrow that any move in the dark was likely to land him on the rocks five hundred feet below. When daylight came he managed to get out of his predicament, minus his camera, thirsty and half famished.

Truly, the photographer's life is an uneasy one.

THE WESTBY PICTURES

The Westby series of marine views exhibited by CAMERA CRAFT at the California Camera Club rooms attracted great attention and aroused much interest. CAMERA CRAFT is in receipt of a communication from the Board of Directors, returning thanks for the exhibit, and feels it incumbent to express its sincerest appreciation of the recognition.

The pictures are now being exhibited at the San Diego Camera Club, and from there will go to the Los Angeles Club.

The deeper thinkers of the craft will greatly appreciate the article by Mr. Ernst Gundlach, the pioneer lens maker of America, found in this issue. Mr. Gundlach, who is in charge of the optical department of the Vive Camera Company, was loth to prepare the article for CAMERA CRAFT, saying that he was a lens maker and not a magazine writer, but that his simple and complete article will attract world-wide attention we do not doubt. It is written in a concise yet clear manner, and it is as free from technical terms as it was possible to get it.

"Society Gossip," one of our full-paged illustrations this month is by Mr. Edwin R. Jackson of Oakland. Mr. Jackson has attained great success in one of the most difficult branches of photographic art, that of figure studies. At present he is preparing a series of illustrations for the Doubleday & McClure and *Photograhic Times* prize competition. He has chosen to illustrate the "Gentleman from Indiana," a novel full of opportunities to a conscientious and artistic workman such as Mr. Jackson.

The first prize offered by the Employing Printers' Association for the best page in the "Printers' Day Souvenir" has been awarded to Sunset Press, who print CAMERA CRAFT. There were some forty-five firms in the competition.

The thanks of CAMERA CRAFT are due to Mr. Julian Harris of the *Atlanta Constitution* for his valuable assistance in the eclipse illustrations.

Western Graphic, the Los Angeles illustrated weekly, has been printing a number of clever snap shots of prominent citizens with great success.

BY JOHN HOOD. THE YOSEMITE. MADE WITH AN AL VISTA

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER

"Bird Studies with a Camera," by Frank M. Chapman, is one of the most delightful books of the month. Mr. Chapman, while a scientist and an ornithologist of note, writes in the vein of the naturalist of yore, whose love and interest lies rather with living nature than with bones and phylogenises, yet his observations and photographs have the greatest scientific value. The book opens with a chapter on the methods and outfit of the bird photographer, the reading of which gives us some inkling of the many difficulties to be overcome by the worker in this field. The remaining chapters show how the author overcame these troubles and secured results that places us on a footing of familiarity with many of the denizens of our fields and shores such as few of us may hope to attain by personal observation.

The body of the book is made up of a series of splendid illustrations of bird life, showing our feathered friends in every aspect of their public and domestic life, and in all stages of their growth and history. We see the unhatched egg, lying, not on the naturalist's table, but in its own nest in its native habitat; we see the newly fledged young, and watch them, in successive photographs, attain strength and maturity. No less than 110 well-executed photographs, taken on field, cliff and mountain, bring home to us the real environments of bird life. Mr. Chapman's literary style is interesting alike to the ornithologist and the general reader.—*Appleton's.*

Anthony's Photographic Bulletin has an interesting article by Mr. Nash, on "Photographing Children" in the June number. The illustrations accompanying the article make us wish that our adult models possessed the delightful lack of self-consciousness shown by these little ones. Mr. DuChouchois writes on the fading of negatives, a very serious matter in connection with stellar photography. The rest of the number is made up of translations from foreign journals.

Recent numbers of the English *Amateur Photographer* have contained some valuable papers. The issue of May 4th contains a well-illustrated and complete account of the Glycerine Development Method of Platinotype devised by Alfred Stieglitz and J. T. Keiley. This method is destined to increase in favor with advanced workers and will bear experiment.

A review of Herr Terschack's work on "Photography in the Mountains" is contained in the issue of May 8th. This is a book that ought to be of great value to California photographers. All who have had experience in mountain photography know its many difficulties, and those who propose to engage therein and read German may be glad to know that Herr Terschack's book can be obtained from the publisher, Oscar Schmidt, Berlin; price, 3 marks (75 cents). A valuable article on "Backgrounds," and a series of articles on pictorial composition, by Rev. F. C. Lambert, are found in the later numbers.

The June *Photo Era* is an excellent number containing some notable reproductions, among which are Mr. C. Yarnall Abbott's "Catherine," "The Bather," by H. A. Hess, and a bit of mountain scenery by E. L. Mudge. An article by D. F. Gay, on "Flash-light Photography," contains some excellent suggestions. "Chats on Higher Ideals," by Edward W. Newcomb, should help to limit some of the prevalent waste of useful plates. The "London Letter," of Mr. Percy Lund, is valuable in that it contains a resume of the work of Howard Farmer of the *London Polytechnic*, on the subject of dark-room illumination. It shows that you may have a flood of non-actinic light by surrounding the illuminant with a cell of potassium bichromate.

The June *Photo American* opens with two papers for the beginner, a lesson "Concerning Development" by Mr. C. W. Canfield, and a paper on "Tripods," by Mr. F. Towson. The "Making of Lantern Slides" is the subject of one of a series of articles by M. O. I. Yellott. Several reproductions of prize winners in the recent *Photo American* competition help to illustrate the number.

The *Photo Beacon* souvenir of the Chicago Salon is a publication no lover of the beautiful should fail to possess himself of. It is handsomely bound and printed on heavy plate paper. The price of the souvenir is 50 cents.

The current issue of *Photo Miniature* contains a treatise on "Developers and Development," and, as usual with this bright little publication, is full of information. No amateur should be without a complete set of these books.

NEWS OF CLUBDOM.

THE CALIFORNIA CAMERA CLUB.

Prominent club members are again agitating the question of new quarters. The present home of the club, although admirably fitted for the use of a smaller organization, has become congested with the increasing membership and new appliances until the club work is beginning to be hampered.

The present idea is to induce the owner of some down-town lot to erect a suitable building according to the wishes of the club. Several locations have been offered but none have so far been found that will answer all of the requirements.

The first instalment of the A. B. C. print exhibit now adorns the walls of the club and is in every way a credit to the exhibitors. The request of the committee met with cordial response and many of the club members produced their finest prints.

The slide exhibition and demonstration on June 19th was attended by a large number of members. Slides where shown from the camera clubs of New Brittan, Frankford, Washington, D. C., and Portland, Me. Following the slide exhibit Dr. E. G. Eisen, gave a demonstration on negative intensifying and reducing. The extreme care and study which Dr. Eisen has devoted to this branch of photography was shown by the practical and concise manner in which he explained the various processes to his hearers.

The trip to Santa Cruz was enjoyed by nearly fifty club members, who will remember the pleasures of the outing for many months to come. The arrangements of the outing committee were never more complete and not a hitch occurred to mar the enjoyment of the party. The accommodations at the Sea Beach hotel were delightful and every opportunity was afforded the guests to enjoy the day.

A pleasant incident of the trip was the presentation of a dainty souvenir to the daughter of Mr. H. B. Hosmer, whose twenty-first birthday occurred during the stay at the hotel.

About the fifteenth of July an outing has been arranged to Ignacio, Marin county, where unlimited opportunities will be afforded for cattle studies.

In August the next overnight outing will take place, with Asti, on the California Northwestern railroad, as the objective point. The stay overnight will be made at Cloverdale, near Preston.

At the last regular meeting of the San Diego Camera Club, CAMERA CRAFT was made the official organ of the club.

Work on the handsome new building now being erected for the Los Angeles Club on Hill street is being rapidly pushed forward, and it is expected that the new quarters will be ready for occupancy early in the fall.

The Pendleton Camera Club enjoyed an excursion to the mountains early in June and spent the day in fishing and making pictures.

A camera club has been organized at Fernando with twenty-four members. The name of the new club is the Fernando Camera and Cycling Club, and W. B. Foyer, an enthusiastic and widely experienced amateur, is the president. The other officers are: R. Charles, vice-president; Miss Cronin, secretary; Mrs. Ed. Brown, treasurer; Grant DeRemer, captain; Wm. Burr, lieutenant.

Fifty members of the Los Angeles Club enjoyed a run to Point Firmin on Sunday, June 17th. Captain Shaw, keeper of the light house, invited the party over and several hours were spent in inspecting the station. Many fine spray effects were obtained along the rugged coast.

The Roseburg Camera Club has been organized with a membership of sixteen. Following are the names of the officers: Mrs. F. W. Benson, president; Mrs. Geo. E. Houck, vice-president; W. H. Fisher, secretary; C. C. Chitwood, corresponding secretary; F. H. Churchill, treasurer; Mrs. L. A. Walker, librarian; H. D. Graves, Mrs. F. W. Woolley, Mrs. W. H. Jamieson and Mrs. H. D. Graves, board of directors. Regular meetings will be held on the second and fourth Tuesdays of each month.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

Try to avoid making a picture of just high light and deep shadow for it will be harsh and contrasty. On the other hand, lack of either will render your picture devoid of character. As a general rule, the light should fall from the right or left, though there are some deviations from this. In looking towards the light you are apt to get too much flat shadow, unbroken by detail, and when looking the other way everything is flat and your picture will be weak. Try to compose your picture so as to include some quiet masses of half shadow with deeper tones in them and the rest half light concentrated by some very high lights.

In focusing, if you find it impossible to get both the distance and foreground sharp, even with the use of the swing back, divide the focus and give the preference to the foreground, keeping in mind the fact that a lack of sharpness in the foreground is more noticeable than in the distance. This is the case with your own vision and a photograph can never err if it translates the scene as the eye sees it.

Those who have used the Millen Company's Etching Matte and Platinotype paper will be pleased to learn that the manufacture of this paper is again under the supervision of Dr. J. C. Millen. He will personally supervise the chemical laboratory and the purchase of all materials used in the production of the papers, thus insuring perfect uniformity in all of the different grades.

Dr. H. W. Vogel says that the actinic force is greater in high altitudes than on the sea level. This fact, which is well proven, should be borne in mind by those contemplating a trip to the Yosemite or other mountainous districts. The preventative against overexposure will be, of course, the use of a smaller diaphragm or a faster shutter, preferably the former.

B. D. Merchant of San Jose gives the following suggestion as to a handy drying board for films:

Take a strip of ½-inch board about one inch wider than the film and long enough to hold six exposures. Cover it with one or two thicknesses of blotting paper and tack on. Lay the film face up and stick pins in at every blank space. By slanting the blotter, the glycerine solution will be absorbed, leaving the back of the film clean.

When you know that you have overexposures try this remedy. Soak the plate in a saturated solution of bromide of potassium for one minute, then, without washing, develop it in a well-restrained developer to which has been added ten drops of a fifty per cent solution of citric acid to four ounces of developer.

A number of prominent amateurs are on the way to Alaska this summer. Judge Walter M. Willett left for a business trip and Miss H. M. Fairchild, principal of one of the San Francisco schools, is on a pleasure trip along the coast. Both of them expect to bring back pretty pictures.

Learn to rely on yourself. Abstain from trusting to some one else to help you and get clear of your difficulty at the time. Do not allow yourself to become contracted and dry, remembering that to become a genius and to gain individuality you must work for it.

The prize offered by Mr. O. G. Tullis of Santa Monica for the best local amateur picture was won by Mrs. R. R. Tanner, the subject being a Jersey heifer in the act of consuming a whisp of hay. Another contest will shortly be announced.

CAMERA CRAFT is anxious to obtain a number of the best pictures made during the Stockton Carnival, and to obtain them offers a year's subscription for each print accepted, with full credit given to each picture reproduced.

Among the well-known amateurs who have departed for the Paris Exposition are Miss J. L. Winson, Mrs. R. B. Smeede, Mr. Geo. W. Thompson and Mr. Thomas F. Boyle of the *Bulletin*.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

TAKE A VACATION AND STUDY NATURE.

The full-voiced mornings are cool and clear,
The dewy twilights are calm and blue,
The world is atune with the bright, gay year,
And rings with melody through and through.

There are happily but few persons who are absolutely incapable of feeling the sensation of beauty. Hence it follows that the portrait maker should be a picture lover, and withal, a lover of nature. It is undoubtedly true that all men are not born with an equal capacity for understanding, much less interpreting, the highest styles of beauty in art. One man is naturally more sensitive to and affected by the different aspects of beauty than another, but no one is born with the ready-made ability to reproduce those beauties for others; this only comes through endless practice and earnest study.

The professional photographer too often forgets that others may teach him; that to read is to learn. He is too often content to follow the same old lines until some day he is brought to an abrupt realization of the fact that Smith, around the corner, is getting all of his custom. Men in every other profession have to read and study. Why should not men in photography do the same? The public is gradually awakening to the fact that there are possibilities in the photographic art other than mere fine polish and characterless retouching. The wise man is he who develops something new, pleases them and cultivates the ability to use the ideas of others and evolve from them something of his own.

To succeed remarkably in any profession one must become an enthusiast and nothing will better create that enthusiasm in a portrait photographer than to shoulder his camera and take a vacation in the woods or among country scenes, even if it is but for a day. There he will learn that the act of placing his camera before a subject, with successive care in focusing, exposure, development and so on is not the only requisite for a correct reproduction of nature. Two photographers may choose the same subject; both may be technically proficient in photography; the photographs produced may be equally like the subject, yet one will surely be superior to the other for the simple reason that the artistic judgment of the one was superior to that of the other. The artist chose a better position, thereby making a more pleasing composition.

This same thing may be applied to portraiture. The man who places the sitter in the same lighting that hundreds have been in before is the man who makes his show case and bank account tell tales. Read and study, get the gist of what is said and try to apply it. Let some one else run the gallery once in a while and, while nature is beautiful, go out and gather ideas from the trees and the mountains. It will make you ambitious.

Andrew J. Lloyd's "Photographic Encyclopædia for 1900," which catalogues almost everything known in the photographic line, has just been issued. Many pages are devoted to instructive articles on photography by prominent writers and much valuable information is included. The liberality of the firm is clearly evinced by the spirit which moves them to present such a valuable catalogue free to their patrons.

Here is a suggestion for numbering negatives. Finish one more picture than the order for your own use as a sample and for future reference. Write all necessary notes on the back of this one, numbering the negative the same. Bind these alphabetically and you will have no trouble in finding the negative or finishing the pictures in the same manner as the former order.

The Stuparich Manufacturing Company of San Francisco have just completed a Spanish edition of their mount catalogue for the use of the trade in Mexico, South America and other Spanish-American countries.

For repairing leaky skylights give the sash and all of the outside woodwork a coating of gas tar to which a little tallow has been added.

Mr. Fred H. Bushnell left on June 13th for Paris on a special mission to obtain exposition pictures for the *Examiner*.

THE DEMONSTRATOR.

F. I. M.

A New Developer

Of the new developers "Kachin" takes front rank. It embraces the best qualities of all the other developers, while free from many undesirable features peculiar to them. In a few comparative experiments made with Kachin and other developing agents I find that with metol the image appears more rapidly than with Kachin, but before sufficient density was obtained the latter had overtaken it, and that the development was finished before the metol. Tried against hydroquinone, it gave more detail in the deepest shadows and the negative was developed and fixed by the time the hydroquinone one was fully developed. Tried with amidol, it still had the advantage, as was also the case, in a less degree, with the metol-hydro developer. Compared with pyro the results were much the same as regards detail, but the Kachin developed much more quickly and was free from the yellow stain of most pyro negatives.

Kachin developed negatives do not reduce in the fixing bath. The mixed developer can be used over and over again, retaining its energy for a longer period than any other developer I know of. It works free from stain or fog and gives great latitude in exposure. It is peculiarly sensitive to bromide, much more so than any other developer.

Here is a formula for a one-solution developer:

Water	200	grammes
Sulphite soda (crystals)	5	"
Carbonate of soda	10	"
Kachin	2	"

Diluted one-half it works satisfactorily on Velox or Bromide paper and is particularly adapted for lantern slides.

Platinum Paper

At last the Platinum paper has "caught on." Everyone is using it. The latest reports from the East are to the effect that it is the "exclusive paper" of the principal galleries. The enormous demand for this paper has practically swamped the few factories producing it and they are running to their utmost capacity.

This sudden popularity is due, in great measure, to Mr. John Bradley of Philadelphia whose excellent Platinum paper, sold at a price much lower than other first-class Platinum paper, has made it possible for the photographer to use it altogether and make a profit at the old scale of prices for P. O. P. Bradley's paper produces the richest effects I have ever seen on Platinum paper and its simplicity of manipulation and low cost will undoubtedly prove strong factors in its early introduction on this coast.

Color Photography

To photograph color by the McDonough method there is added to any camera a taking screen and chromatic balance shutter, which is, in other words, a color filter. Through these two attachments the light from the object photographed impresses the silver haloids on the Erythro dry plate, which produces the negative.

The taking screen is a plate glass coated with a gelatine emulsion and ruled in red, green and blue parallel lines, from three to six hundred to each inch in the order named. The taking screen is adjusted in a metal frame inside the camera and near the plate holder, and is attached to a lever conveniently placed on the side of the camera where it can be manipulated to throw the taking screen against or in contact with the emulsion side of the Erythro dry plate after the slide of the plate holder has been withdrawn to make the exposure.

The chromatic balance shutter or color filter, which has its place on the hood of the lens, is a metal shell fitted with sectors of lemon-yellow and orange-colored mica or glass which are movable and actuated by a metal tip or finger. The object of this attachment is to balance the varying conditions of illumination, there being less blue in the light in sunlight than when the sky is cloudy or when photographing indoors. The adjustment of the shutter for these differences of illumination is done by moving the metal finger towards the words "Sun and Shade" that are engraved on the rim of the shutter.

The Erythro plate is the normal dry plate especially orthochromatized or dyed for the red wave lengths of light and is also sensitive to the other wave lengths. A negative made

under the conditions noted will show in duplicate the lines of the taking screen, but with different degrees of opacity, according to the light value that has fallen upon the silver haloids of the Erythro dry plate through the taking screen and chromatic balance shutter.

In making transparencies or lantern slides, these color value lines of the negative are transferred to the positive, which is made in the usual way by superposition, using any lantern slide plate. Having made a good positive, it is ready for the viewing screen. This is a thin glass plate covered with an emulsion of gelatine and ruled with the same red, green and blue as the taking screen, in the same order and number to each inch. The emulsion side of the positive and the ruled side of the viewing screen being placed in contact, the lines being in parallel or register, the colors will appear as in the object photographed. Photographs in color on paper are made by placing the McDonough negative in a specially devised printing frame and in contact with it chromatic sensitized paper, which is a printing out paper, ruled with red, green and blue lines in number and order as on the taking screen, and by movement of registering screws, the lines of the negative and chromatic sensitized paper are paralleled. Print in sunlight as an ordinary photograph. Tone, fix and mount as usual.

Pictures in color for magazine, book and catalogue illustrations are produced from copper half-tone plates made from the same negative and printed in black ink on paper ruled with the colored lines.

Mr. G. H. Harris of the Miniature Portrait Company furnishes CAMERA CRAFT with the following hints on the use of the new M. P. transparent water colors:

Amateurs or professional photographers who use Aristo paper will have no trouble in coloring them if the prints are left in a tray of clear water after being fixed and washed until the next day or any convenient time to do the coloring. When ready to color, lay the print face up on a blotter, remove the surplus water with a soft cloth, mix the colors to the desired shade and apply with a sable brush, being careful not to overrun where other colors are to go as the M. P. colors will immediately take and cannot be removed. The prints after being colored can be soaked and mounted in any way desired. Vinegar or acetic acid No. 8 used as a moistener for the colors will make the coloring of mounted Aristo prints very easy.

BUSINESS NOTES.

The 1900 catalogue of the Folmer, Schwing Manufacturing Company of New York is at hand, and, while exceedingly plain and unassuming, it describes the most expensive camera on the market—the Graphic. The motto of this firm is "Quality first," and the seemingly high price of the Graphic is easily accounted for when the instruments are examined. The long focus cycle is certainly the camera of the year.

The annual catalogue of Kirk, Geary & Co. of Sacramento and San Francisco appears in two editions this year The amateur edition includes everything for the amateur, while the professional edition quotes professional accoutrements and supplies. A special export edition, intended for the trade of this firm in China, Japan, New Zealand, the Islands, South America, Central America and Mexico, has also been published. The cover design has a decidedly Californian flavor, being composed of poppies and wild oats.

Bausch & Lomb, makers of the stereo field glasses, have just issued a poster illustrating the power of the instruments. Five photographs are shown of the eclipse of May 28th, all being made with one of the field glasses. A small booklet, giving new details of the binoculars, has also been issued.

Mr. and Mrs. Henry Wells Matthews of Rochester, N. Y., have issued invitations to the wedding of their daughter, Hattie Elizabeth Matthews, to Mr. Robert Logan Ennis, who travels on the Pacific Coast in the interest of the Rochester Optical and Camera Company.

The fourth annual convention of the Photographers' Association of the state of Pennsylvania, held at Pittsburg on May 1st, was attended by a larger crowd than any of the preceding meetings.

Mr. Charles Adams of the Stuparich Manufacturing Company is seriously ill at the German hospital.

SANTA BARBARA DRIVES.

The accompanying illustration is a reduction from the winning picture in the competition instituted by the Santa Barbara Chamber of Commerce, who desired to obtain a good photograph of the mountain drives of Santa Barbara for advertising purposes. The picture was made by Mr. H. N. Reed of Santa Barbara to whom the prize of twenty-five dollars was awarded. The award was made at a full meeting of the Chamber of Commerce. There were only eight competitors but the judge had some difficulty in selecting the winning picture because of the excellence of the pictures submitted.

PROVERBS.

Do not insist that the copy will be better than the original. If you do the customer will, in all probability, take the next job somewhere else. You may not fulfil your promise.

Be patient with crying babies and thus win the mother's esteem.

Respect the other fellow's work and your friends will respect you more.

When they tell you the old joke about the dentist's chair drown them in the hypo tank.

Don't lay out all your money on Brussels carpets and handsome furniture unless you have good lenses and know how to use them.

Be kind, as a selfish business principle if for nothing else.

Be courteous to your employes. It costs nothing and they may not stay with you always.

FIRES.

Fire has played havoc with western photographers during the past month. On May 29th the Rawson block in Los Angeles, containing four photographic establishments, was destroyed. F. W. Stein, the official photographer of the Police Department, was the heaviest loser. He was heavily stocked with plates and had in his charge about 2000 negatives belonging to the police records. The gallery of T. E. Stanton & Co. was completely burned, while the Los Angeles Photo Engraving Company sustained a loss of $1000. The supply house of Howland & Co. was considerably damaged by water.

The Photo Wigwam at Bisbee, Ariz., also suffered severely during the last month. Mr. Hill, a member of the firm, was seriously burned while fighting the flames.

On June 13th, Buehman's gallery at Tucson, Ariz., was damaged by smoke and water in consequence of a neighboring blaze. Cause, gasoline explosion.

TONING BROMIDE AND VELOX WITH COPPER FERRICYANIDE.

By A. W. Dickins, in the English "Amateur Photographer."

Quite recently Mr. Ferguson brought before the Royal Photographic Society a process for toning bromide prints which is simple, easy and certain in its action, yielding exquisite tones, far more permanent than any given by preceding methods.

Mr. Ferguson's formula is:

10 per cent neutral potassium citrate solution	250	parts
10 " " copper sulphate solution	35	"
10 " " potassium ferricyanide solution	30	"

Mix in the order named.

I have found that it is more convenient to dilute this solution with an equal bulk of water, to bring the action more under control.

We now come to the *modus operandi* of toning with this copper ferricyanide bath. I prefer to use the dry chemicals and weigh up the amount required each time, as potassium ferricyanide does not keep well in solution. The formula I use is:

(*a*) Neutral potassium citrate	70	gr.
(*b*) Copper sulphate crystals	10	"
(*c*) Potassium ferricyanide	9	"
Water to	4	oz.

Dissolve in the order named, and make up bulk to 4 oz. with water.

The prints should be developed slightly darker than the tone finally required, and well washed until free from hypo, as the ferricyanide, in combination with any hypo which might be present, forms the powerful and well-known Farmer's reducer.

The wet or dry prints, thoroughly freed from hypo, are now immersed in the above solution, taking care that all air bells are removed, or a black, untoned patch will result. The prints should be thoroughly immersed in the solution and kept moving, as in toning P. O. P. In about a minute the cold black of the bromide print will change to a warm black, in two or three minutes to a rich purple-brown, and the toning will then proceed through various stages of brown, red-brown, and, finally, if carried far enough, to a brilliant red chalk, which is not suitable for all subjects, but is very effective for some portrait studies and similar subjects.

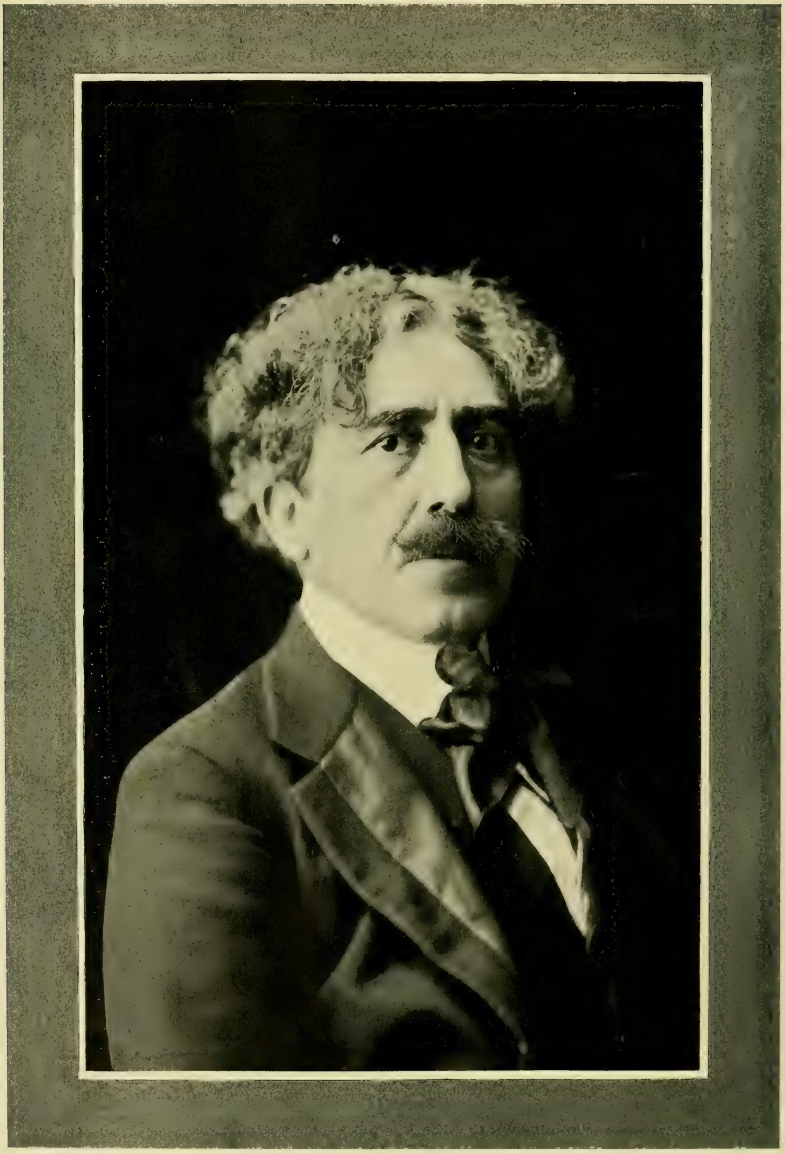
As soon as the desired tone is reached, the print should be at once immersed in a dish of clean, cold water, and washed for an hour. Unlike uranium tones, the color does not alter on prolonged washing in tap water, which is always alkaline; consequently, a thorough washing may be given, obviously increasing the permanency of the image. Even strong ammonia has but little effect in altering the color or weakening the image. The bath also possesses the additional feature of not staining the high lights. When the prints are washed they may be hung up to dry, the tone becoming slightly darker when dry. Lantern slides and transparencies may be toned in the same bath as is used for prints, the procedure being exactly similar. The colors obtained are much more effective on the screen than transparencies treated with uranium, or when ammonium carbonate and bromide are added to the developer, as they are more transparent, and the grain is much finer, consequently they transmit more light.

PATENTS.

Frederic E. Ives, Philadelphia, camera for composite color photography. Chas. F. Jenkins, Richmond, Ind., photographic printing apparatus for making a large number of prints from one or more negatives on developing paper. W. C. Fischer and Frank C. Schade, St. Paul, photographic plate lifter or developing tongs; this differs from other developing tongs, inasmuch as it is adjustable to any size plate. Thomas J. Demorast of Garfield, Wash., focusing hood for cameras. I. I. Karpoff of St. Petersburg, Russia, magazine camera.

Western Camera Notes of Minneapolis contains ten reproductions of selected pictures from the Minneapolis Camera Club exhibit. All of the pictures are good, especially a "Wet, Foggy Day," by John Hadden.

Be prompt with your patrons. Nothing so disgusts people as a broken promise.



NEGATIVE BY TABER.

CADENASSO.

OUR MONTHLY PORTRAIT—STUDY THE LIGHTING AND POSING EFFECTS.

A CRITICAL OPINION OF THE CHICAGO SALON AFTERMATH.

By W. G. Woods

Mr. F. Dundas Todd in criticising the recent Chicago Salon alludes to a particularly atrocious composition of the impressionistic school, taken squarely against the light and badly fogged. He states that considerable controversy existed between the critics as to whether the picture was good or bad, one side claiming that the fog was accidentally obtained and therefore the picture was bad. The other critics claimed that the fog was obtained by intent, therefore the picture was highly artistic.

Seeing only the reproduction, justice may not be done the picture when the sentiment is expressed that, whether accidental or intentional, photography would be better served by the prompt consignment of such artistic attempts to the waste basket instead of foisting them upon the public as high-art examples. Mr. Todd's criticism suggests the idea that in future pictures of this class should have attached to them a sworn affidavit to the effect that no violation of the generally accepted rules of composition, lighting, posing, exposure, development, printing and mounting had been committed and that the picture is not the result of accident, but was made "with malice aforethought" in order that these abominations should not be placed in the "accidental class."

BY JULIUS BRIED. BACKYARDS IN TYROL.

COURTESY OF THE "SUNSET" MAGAZINE

IN PORT.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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An Indian Tepee

BY EUSTACE CULLINAN

ILLUSTRATED BY LEE MOOREHOUSE.

HERE in a copse upon the river's edge
An Indian tepee, sheltered, solitary;
Note how the sunlight washes all the hill,
Mark how the shadows deepen in the wood—
Your middle distance—how the gray-toned stream
That winds among the shadows and the trees
Reflects the autumn glory of the skies;
The tepee in the center of the field
Gives life to it—a picture for the gods;
Yet lacking something! Set the camera down,
Drop, for awhile, the jargon of our art,
Cease measuring the shadow and the light,
Forget our plates and processes, and think.

What makes a picture? Not the whites and blacks,
The shadow-graduation of the scheme—

Those are Nature's writings — but the spell
The seeing mind casts over Nature's work:
The camera will not see if we are blind;
We must get Nature's meanings, not her marks!

An Indian tepee in the wilderness,
The lonely outpost of a dying race
That once were strong and conquerors of men;
Perhaps some sachem, faring westward ever,
His tribe dispersed, his gaudy braves all gone,
Hath reared his nomad home in this far place.
Remote from striving men and the fierce world
Here museth he upon the days that were
Before an alien people drove him forth
And all his tribe to wander and to die;
Here watcheth he the current of the stream
That moveth ever toward the western sea,
Like his own driven people — there to cease.
Perhaps some Indian maiden in this place
Dreameth the blushing dreams of maidenhood,
Hopeful as youth, not thinking of the past.

So in the lonely tepee life and love,
Shadows of age and lights of happy days,
Sorrow and joy, the burden of the years,
The epic of a race made desolate,
The idyl of a maiden's fantasies,
Temper the picture — careful with the plate —
Focus all right? Then ready. Ah!
A second plate — a picture for the gods!

"THE LONELY OUTPOST OF A DYING RACE."

The Mountain Heart's Ease

(John Muir)

PHOTO BY PILLSBURY

By

OLAF ELLISON

"By scattered rocks and turbid waters shining,
By furrowed glade and dell,
To feverish men thy calm
Sweet face uplifting,
Thou stayest them to tell."

So sung Bret Harte in honor of the Sierra Nevada heartsease when he first beheld them, before the splendid foothills that circle the Sierra Nevadas had lost their pristine beauty, and at the time the fevered gold-hunter was everywhere.

John Muir, the rare genius of whom it is a privilege to make an imperfect outline sketch in these pages, might truly be termed the human counterpart of Bret Harte's mountain flower. For, from San Jacinto to Mount Elias —

"His calm sweet face uplifting"

has spoken a message of love and left a shining light that "never was before on the sea or land," in the glorious domain of the Pacific Slope. "The grand side of the continent" he calls it in a letter to a friend, and truly he has a right to say, for no poet or painter has succeeded in revealing the grandeur of the West as has this open-minded child of nature.

With him as a guide, philosopher and friend, the craftsmen of the "camera," for whom this is written, will not only be enabled to find all the scenes of grandeur and magnificence in the Sierras, but what is of even more importance, by sitting quietly at his feet, the inner meaning of the natural splendor so lavished on our majestic landscapes, the secret springs of real poetry of patriotism, of arts, in short, the very cradle-song of the "Humanities" will be audible to our "fevered ears." "The music of the spheres" becomes something beside a dainty bit of phraseology, for the music of the spheres is an ever-descending oratorio to John Muir. His descriptive power makes them as audible as did Ole Bull's violin in translating the spirit and witchery of the mountains and cascades of his beloved Norway.

NEGATIVE BY CHAS. O. ANDERSON

KWA-LY-A-LA-KWO.

But, lest we make Mr. Muir only a great word painter, let it not be forgotten that he took with him into the noble forests and mountains of California a key to unlock their secret doors. The untrammeled vision of a child glorying in the color, the contour and the splendor of the scenes before him, these were his intuitive prerogatives. But, added to this, was the trained acumen of a born investigator and a true scientist.

The trouble with the average theologian is, that his system becomes a mill-stone, so that while his first duty should be to uplift his kind, he is liable to be sinking beneath the weight of his seminary curriculum. So the average scientist believes it to be his first and bounden duty to verify or combat a given scientific theory of some other scientist, or at least, to write science for and to some other scientist. The ability to earnestly appreciate, record and verify accurate scientific data is rare. To do this exceedingly well, and yet transmute it all into fresh beauty so apparent and yet so winning that he who runs must read, is a veritable inspiration direct from that charmed fairyland,

from whence tender messengers are said to descend on every cradle where love is enthroned.

To exhaust the vocabulary of adjectives; to rave over the beauty of this, or the grandeur of that scene, has become a mere form of fashionable frivolity; better than some other indulgences, perhaps, but as bootless and meaningless as the average fashionable "function." But to arrange the simplest verbiage of the teeming English language so as to convey the loftiest thoughts, to converge the plainest sentences into a magic lantern focus, so that forest and mountains, cascades and rivers, their birds, deer and flowers, pass before us in review as veritable kings and princes in a fairyland, yet as real as California sunshine — truly that is the gift of a master.

If any one desires to realize the real significance to the world of such a career and the character it has moulded, contrast John Muir's inspiring utterances with the despairing cry of the late Professor Clifford of England. The profound mathematician of his time, one of the greatest of astronomers — yet the amazing phenomena of the universe, its mighty life, its beauty as well as its majesty, were only so many forms of dry mathematical object lessons and the earth, with its countless beings, a tremendous orphan asylum. A giant in intellectual power he deliberately sought oblivion with a cry of despair on his lips, for—

"The great companion is dead."

The infinite pathos of such a career makes that of John Muir the more deeply suggestive. Humble as a child, reverent as a saint, but with the insight

NEGATIVE BY PILLSBURY

THE MUIR GLACIER.

of a Newton into unseen realities in a world attuned to beauty, Mr. Muir steps into the Sequoia forest and here is what he sees on a morning that other mortals would call "a blustering, dreary day":

"The mountain winds, like the dew and the rain, and the sunshine and snow, are measured and bestowed with love on the forest to develop their strength and beauty. However restricted the scope of other forest influences, that of the wind is universal. The snow bends and trims the upper forests every winter, the lightning strikes a single tree here and there, while avalanches mow down a group as a gardener trims out a bed of flowers. But the winds go to every tree, every leaf and branch, and not one is forgotten. The mountain pine towering with outstretched arms on the rugged buttresses of the icy breaks, the lowliest and most retiring tenement of the dells, they seek and find them, tenderly bending them in lusty exercise, stimulating their growth, plucking off a leaf or a limb as required, or removing an entire tree or grove; now whispering and cooing through the branches like a sleepy child, now roaring like the ocean; the winds blessing the forests, the forests the winds, with ineffable beauty and harmony as the sure result.

"The waving of a forest of giant sequoias is indescribably impressive and sublime, but the pine seems to me the best interpreters of winds — they are mighty, waving, golden rods, ever in tune, singing and writing such music all their long century lives."

The explorer found himself in the upper Yuba River in the midwinter of 1874, and there witnessed what to him constituted one of nature's grand oratories.

"It was early in the morning when I found myself adrift. Delicious sunshine came pouring over the hills, lighting the tops of the pines, and setting free a stream of summery fragrance that contrasted strangely with the wild tones of the storm. The air was mottled with pine tassels and bright green plumes that went flashing past in the sunshine like birds pursued. The gestures of the various trees made a delightful study. Young sugar pines, light and feathery as squirrel tails, were bowing almost to the ground, while the grand old patriarchs, whose boles had been tried in a hundred storms, waved solemnly above them, their long arching branches streaming fluently on the gale and every needle thrilling and singing and shedding off keen lances of light like a diamond. Colossal spires, two hundred feet in their height, waved like supple golden rods, chanting and bowing low as if in worship, while the whole mass of their long, tremulous foliage was kindled into one continuous blaze of white sun fire. Even when the grand anthem had swelled to its highest pitch, I could distinctly hear the varying tones of the individual trees. Each was expressing itself in its own way, singing its own song, making its own peculiar gesture, manifesting a richness of variety to be found in no other forest pine yet seen."

But even this spectacle is far less sublime and not a whit more substantial than that we may behold of the storm streams of air in the mountain woods. In order to fully observe the effects of the storm in the woods, Mr. Muir climbed the tallest and most supple sequoia at his command, and swaying in the storm with the motions of the tree identified himself with the grand scene about him.

"When the storm began to abate I dismounted and sauntered down through the calming woods." Says he: "The storm-tones died away, and turning toward the east I beheld the countless hosts of the forests hushed and tranquil, towering above one another on the slopes of the hill like a devout audience. The setting sun filled them with amber light and seemed to say while they listened, 'My peace I give unto you.' As I gazed on the impressive scene, all the so-called ruin of the storm was forgotten, and never before did these noble woods appear so fresh, so joyous, so immortal."

Mr. Muir's careful and authoritative work in the botany of the Sierra

Nevada woods is supplemented by equally valuable and extensive researches relating to the glacial epoch of the great mountain systems he loves so well. Nevertheless, he is a careful and successful delineator of human characteristics if found under auspices that appeal to him. In studying the ancient gravel beds of the Calaveras he came across some of the old-time California prospectors, "the human document of the Sierras," he has ventured to call them, and what Pacific Coast type so well worthy of the camera artist's effort to perpetuate as these mountain pioneers of ours but for whom the California of today could not have been? Of them Mr. Muir says:

"Many a brave fellow has recorded a most eventful chapter of life on those Calaveras rocks. But most of the pioneer miners are sleeping now, their wild day done, while the few survivors linger languidly in the washed-out gulches or sleepy village, like harried bees around the ruins of their hives. 'We have no industry left now,' they told me, 'and no men — everybody and everything hereabouts have gone to decay. We are out of the game, a thin scattering of poor, dilapidated cusses compared with what we used to be in the grand old days. We were giants then, and you can look around here and see our tracks.' But although these lingering pioneers are, perhaps, more exhausted than the mines, and about as dead as the rivers, they are yet a rare and interesting set of men, with much gold mixed with the rough, rocky gravel of their characters, and they manifest a breeding and intelligence little looked for in such surroundings as theirs. As the heavy, long-continued grinding of the glaciers brought out the features of the Sierras, so the intense experiences of the gold period have brought out the features of these old miners, forming a richness and variety of character little known as yet. The sketches of Bret Harte, Hayes and Miller have not exhausted this field by any means. It is interesting to note the extremes possible in one and the same character — harshness and gentleness, manliness and childishness, apathy and fierce endeavor. Men who, twenty years ago, would not cease their shoveling to save their lives now play in the streets with children. I heard a group of brawny pioneers in the street eagerly discussing the quantity of tail required for a boy's kite, and one graybeard undertook the sport of flying it, volunteering the information that he was a boy, 'always was a boy, and d—a man who was not a boy inside however ancient outside.'"

The "feverish men" are Alaska bound just now, but John Muir has preceded them by many years. Let us hope that some of our "camera" associates will also find their way up there this season for the noblest picture galleries, perfect from the easel of the Sovereign Artist of the universe, abound in this our own "Land of the Midnight Sun."

Here is one of the many visions, almost too grand for words, yet he gives us enough to be infinitely grateful for. The explorer is at Fairweather Mountain, observing the great glacier justly bearing his own name.

It is early morning, and the sunrise had not been been witnessed by the explorer because of the configuration of the mountain, at the base of which he found himself, but —

"In the midst of our studies we were startled by the sudden appearance of a red light, burning with a strange, unearthly splendor, on the topmost peak of Fairweather Mountain. Instead of vanishing as suddenly as it had appeared, it spread and spread until the whole range down to the level of the glaciers was filled with celestial fire. In color it was at first a vivid crimson, with a thick furred appearance, as fine as the alpen-glow, yet indescribably rich and deep. It was not in the least like a garment, or mere external flesh or bloom, through which one might expect to see the rock or snow, but every mountain apparently glowed from the heart like molten metal fresh from a furnace. Beneath the frosty shadows of the fjord we stood, hushed and awe-stricken, gazing at the holy vision. Had we seen the heavens open and God made manifest, our attention could not have been more

tremendously strained. When the highest peak began to burn it did not seem to be steeped in sunshine, however glorious, but rather as if it had been thrust into the body of the sun itself. Then the supernal fire, slowly descending, with a sharp line of demarkation separating it from the cold-shaded region beneath, peak after peak, with their spires and ridges and cascading glaciers, caught the heavenly glow, until all the mighty hosts stood transfigured, hushed and thoughtful, as if awaiting the coming of the Lord. The white rayless light of the morning, seen when I was alone amid the silent peaks of the Sierra, had always seemed to me the most telling of the terrestial manifestations of Diety. But here the mountains themselves were made divine and declared His glory in terms still more impressive. How long we gazed I never knew. The vision passed away in a gradual fading change, through a thousand tones of color to pale yellow and white, and then the work of the ice-world went on again in everyday beauty." —(*Scribner's Monthly, 1895.*)

Where such a man as John Muir was born is of comparatively little importance, for his name is imperishably associated with the mountains of California. He is, however, a countryman of Walter Scott and John Burns, born at Dunbar, Scotland, in 1838. He is a graduate of Wisconsin State University, to which commonwealth his father removed while the subject of this sketch was merely a boy. He entered upon his scientific career as an independent investigator with a little tramp in the outer world, which included a walk from the Central Mississippi Valley to Florida, botanizing the entire distance. From there he came to California, and now it seems impossible to ever disassociate his name and career from this coast. He has entertained many of the greatest scientists of this and other countries, has had Ralph Waldo Emerson for his guest in the Yosemite Valley, and has botanized with Asa Gray and Sir John Hooker around the base of Shasta. Scientific honors have come to him thick and fast, but it is not these that he has especially sought. The spirit in which he has lived and worked, and which continues to animate him, is best given in his own words in honor of the greatest botanical student the world had ever seen until that time, the immortal Linnaus.

"Dry words and dry facts will not fire hearts. A botanist may be a giant in intellect, gather plants from the four quarters of the globe, and pile them in labeled heaps as high as haystacks, without kindling a single spark of the love that fired the followers of Linnaus. In drying plants, botanists often dry themselves. But Linnaus loved every living thing as his friend and brother, and his eyes never closed on the divine beauty, harmony and oneness they displayed. All the dry word work he did, however technical and severe, was done to bring the plants and animals as living children of Nature forward into the light he loved. In the midst of his immense classifying labors he seemed always to be saying, in a low glowing undertone, 'Come darlings, I love you all, and want everybody to love you.'"

The quotation is from John Muir's biography of the Father of Botany, the great Linnaus, and we can do no better than close these lines by quoting the words written in honor of the father of his own favorite study. It is exactly the spirit and the character in which the author himself has pursued his great scientific researches on the Pacific Slope. Few, if any, living men have succeeded so well in kindling human hearts with the divine fire always glowing on the altar of Nature. There could be no greater blessing added to the innumerable ones with which our California is already so bountifully endowed than a new installment of John Muirs, for when our gold and silver "have taken wings" the fact that a John Muir lived and worked, and saw his visions in the Sierra Nevadas, will remain among the greatest and most imperishable treasures of the Pacific Coast.

WHAT IRON YEARS HAVE FORGED THAT RUGGED PHIZ
FROM SOMETIME BABY FEATURES SOFT AND DIM?
—KATHARINE LEE BATES

NEGATIVE BY LA ROCHE, SEATTLE

KALLITYPE PRINTING.

NEGATIVE BY PILLSBURY

IN THE rush to get photographic supplies and methods on the market, many old processes have been revived. Among them is the Kallitype process, which has been dragged from the shelf, dusted off and presented to the amateur under various high-sounding names. Those who desire to wander from the beaten path, and those who prefer to make their own paper, deriving as much pleasure from the preparation of the paper as from the making of the print, will find the Kallitype process as simple as can be attempted, yet one which may be made to yield most excellent results, especially in these days of the race from the naturalistic and impressionistic picture.

The Kallitype method is a combination of the printing out and the developing process, as the image prints visibly, but is not sufficiently brilliant until treated with a developer, which brings out the image bright and clear. The paper stock used may be almost any finely-grained, substantial paper, Rives or Steinback stock, such as is used for plain silver prints, being especially good.

Many formulæ for the sensitizer may be found, the following from the *Photo-Times Almanac* being extremely simple: Sodium ferric oxalate, 6 drams; water, 2½ ozs. Coat the paper by floating it or brushing it on with a brush or swab of cotton. Dry quickly without the aid of heat. Print until the shadows become visible and develop in a 1½% solution of nitrate of silver acidulated slightly with citric acid. Wash in pure water. Any yellow tinge may be removed with a 5% solution of oxalic acid. A late formula in the January number of the *Photo Miniature* gives the following sensitizer with which the paper may be coated: Ferric oxalate, 75 grs.; silver nitrate, 30 grs.; distilled water, 1 oz., and as the developer, rochelle salts and borax as follows:

For Black Tones—Borax, 45 grs.; Rochelle salts, 30 grs.; water, 1 oz.; potass-bichromate in 1 per cent solution 45 min.

For Purple Tones—Borax, 45 grs.; Rochelle salts, 10 grs.; water, 1 gr.; potass-bichromate in 1 per cent solution 45 min.

Sepia Tones—Rochelle salts, 25 grs.; water, 1 oz.; potass-bichromate 1 per cent solution 25 min.

In using the three formulæ given above it is necessary to use a fixing bath after the development is completed, as follows: Stronger ammonia, 7 min.; water, 1 oz. Prints should remain in the fixing bath for about ten minutes, then washed for fifteen or twenty minutes and dried or mounted.

The following papers on the market are of the Kallitype varieties: Celerite, Platinograph and Polychrome, and all are made and handled with various modifications of the foregoing formulæ.

ENLARGED PAPER NEGATIVES.

By Oscar Maurer.

To those of us who find it inconvenient or expensive to use a large camera out of doors, a simple method of making large negatives from small positives will be of interest. The positive to be enlarged should be on glass, and may be made by contact. The advantage of an enlarged negative is the possibility of printing from it by contact on Platinum, Carbon, Velox or any other paper. A good transparency on glass, somewhat stronger in contrast than a lantern slide, is placed in the enlarging camera and projected to the required size on a piece of smooth, thin Bromide paper, such as Nepera Platinoid, and the operation conducted in every way the same as making an enlargement from a negative. The resulting enlargement develops as a negative. Development should not be hastened, that is, the exposure should be so timed that the paper may be left in the developer about half a minute or so longer after it appears to be finished, in order that development may be completed underneath the surface, and throughout the emulsion. It is not necessary to oil the negative, though it is an advantage when time is an object. An unoiled negative of this description made by the writer prints on Bradley Platinum paper in fifteen minutes in the sun during the middle of the day.

Paper negatives are conveniently handled, less destructive than glass, and may be manipulated by the use of water color or crayon to any extent, and can be printed from the reverse side, an obvious advantage to carbon workers. Where excessive detail must be preserved, as in scientific work, this process is of little service, but for pictorial purposes it enhances the beauty of our small, sharp photographs by broadening the effect. Its cheapness ought to recommend it to all who are familiar with the process of making bromide enlargements.

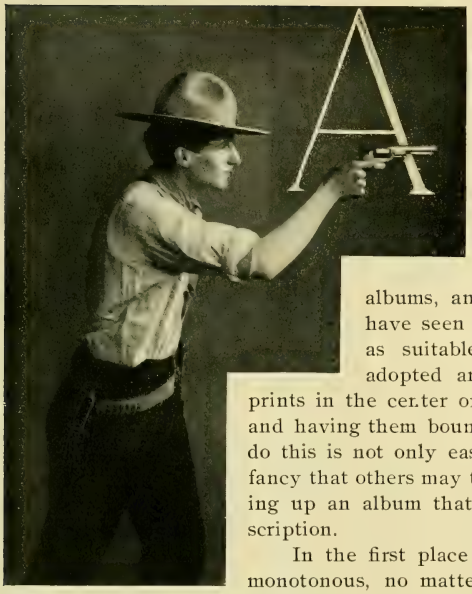
THE PAPER NEGATIVE.

THE PRINT.

(SEVEN-FOLD REDUCTION.)

A NOVEL ALBUM.

By Edward W. Newcomb.



NEGATIVE BY EDWIN R. JACKSON

A BUNCH of loose prints about the house is open to many objections; they become soiled, are not seen to advantage, cannot be found when wanted and disappear in direct proportion to the number of friends one entertains. For these and other reasons I find an album a treasure, indeed. But there are albums and albums, and of all the excellent ones I have seen for sale none appealed to me as suitable for my purpose, hence I adopted another plan; that of making prints in the center of 10 x 12 paper of good weight and having them bound or binding them myself. To do this is not only easy but interesting work, and I fancy that others may take the same pleasure in making up an album that I have, hence this brief description.

In the first place I decided that one color was monotonous, no matter how excellent the pictures, and besides that I am aware that certain colors are essential to the perfect rendering of my negatives. Black and white is probably the most useful combination, but there are portraits, genres and scenery that are improved by a color. Moreover, the beauty of each print is more noticeable if the eye is constantly changing from one color to another, so that one never wearies of looking over album upon album. Now, to go about making such albums, either of two courses may be pursued, one may purchase 10 x 12 paper of various kinds and obtain the following range: Black on Platinotype and Velox, (or others of the papers of the same character); brown, warm black and olive on American Aristo Platino by varying the toning bath or merely fixing in hypo. Blue on Ferro Prussiate paper which can also be turned greenish in a dilute sulphuric acid bath. Reds and blues on Velox by the use of the following baths:

Red —	Potassium ferricyanide	10 grains
	Uranium nitrate	10 grains
	Acetic acid	4 drams
	Water	10 ounces
Blue —	Immerse a red-toned print made in above bath in	
	Water	10 ounces
	Chloride of iron	30 grains

We may also produce sepias on Eastman's Sepia paper so that a fair range of color is possible on ready prepared paper. The other method appeals to me as better since I have paper of uniform thickness and good quality, as well as neater appearance and odd, vignetted effects when I desire them, with no trouble. I first procure sized paper both rough and smooth but of the same weight, and this I have cut into 10 x 12 sheets. With several cheap atomizers and a few chemicals I am prepared to make my own sensitized paper, coat it either wholly or in odd shapes in the center only and produce, at will, blacks, browns, reds, sepias, blues, purples, greens or a combination of two or more on one sheet. The atomizers must be of glass and hard rubber, no metal pipes will answer. They can be had at druggists' supply houses at about twenty-five cents each. Only those emitting a fine spray should be selected and each should be labeled so that it will be used for but one sensitizer. If very carefully cleansed with acid each time, one atomizer might serve for all but that would be somewhat risky. Some of the paper will have to be salted — that upon which the nitrate of silver solution is used — for which the following bath answers beautifully :

A tablespoonful of powdered arrowroot in enough water to make it into a smooth paste, free from lumps, is first prepared. Then add boiling water containing four grains of table salt to each ounce (guess work will be near enough) until it forms a thin, gelatinous fluid. When cool, immerse about ten sheets of paper, taking pains that no bubbles form, and by the time the last is immersed the first is ready to draw out over the edge of the tray; drain and hang up to dry. This salted paper when dry is to be kept separate from the plain and only used for silver prints.

NEGATIVE BY EDWIN R. JACKSON

IN AMBUSH.

Cut-outs must next be made with various openings so that suitable masks can be chosen when printing. The outside dimensions must, of course, be 10 x 12 inches, the openings in the center unless two or more pictures are to be printed in combination, in which case two cut-outs must be cut especially, with the openings in the right portion of the sheet. Thin, black paper will be found excellent for making the cut-outs from. In case vignettes or odd-shaped bits are wanted, no cut-out will be necessary as the solution can be sprayed only upon such parts of the paper as it is desired to print upon. To sensitize simply hang the sheet of paper vertically, stand a foot or two away and spray the sensitizer on evenly if the whole sheet is to be covered, or in such shape as may be desired if not. The nearer one is to the paper the heavier will be the coating. This hint will suffice to all who practice a trifle, in making exquisitely graded vignette work. Paper sensitized with silver should be blotted after sensitizing, the rest should not, but may be worked into form in case of an excess of sensitizer with a badger blending brush. The following sensitizers will be found reliable for the colors given. The paper should be dried in a darkened room. For black, brown, purple, sepia and yellowish brown:

Nitrate of silver	40 grains
Nitrate of ammonia	20 grains
Distilled water	1 ounce

Print quite deep and tone as follows: For jet black tone in the ordinary gold toning bath a few moments, then finish in American Aristo Platinum toner or any good chloro-platinite toner. For brown prints use the acetate-gold bath; for purples, the borax-gold bath. Sepias may be had by doubling the quantity of borax, while for yellowish browns a mere fixing in hypo is all that is necessary. Red prints are made by spraying the paper with a sixty-grain to the ounce solution of uranium nitrate, printing when dry till a faint image is seen and developing in a twenty-grain to ounce solution of ferricyanide of potash. This print when washed and dried will be a beautiful Bartollozi red.

Blue prints. Make up the following:

a.— Ferricyanide of potash	6 grains
Water	1 dram
b.— Citrate of iron and ammonia	8 grains
Water	1 dram

When dissolved mix *a* and *b*, use while fresh and throw the remainder away. Print until the shadow portions are rusty, rinse until the whites are clear and dry in the sun for best results.

There are other sensitizers which can be used to advantage, but which lack of space forbids other than mere mention of. A ready prepared solution called sensitol is one. Professor Valanta's iron and mercury is another, while the familiar Kallitype solutions are also excellent.

I should advise making but one kind of print at a time, as there will then be no tendency to hasten or mix things. Remember that a book like this will last forever, and that it is therefore worthy of special care. If a print comes out poor or if it looks as though it could be bettered it will pay to try it again and again if necessary.

To make a single print in the center of a sheet affix the negative to the clear glass in a 10 x 12 printing frame with gummed strips, then selecting or

making a cut-out of black paper which has an opening suitable for the plate (not necessarily 4½ x 6½ for a 5 x 7 plate but of such a size as includes the good and eliminates the useless parts of the picture) lay it over the plate, place a sensitized sheet on this and put in the back and print. The cut-out will, if cleanly cut with a sharp knife, add greatly to the effectiveness of the picture and will keep the edges clear white. Parallelograms are easily cut true with a draughtsman's rubber or wood angle (90°) and a Robinson trimmer, circles with various sized saucers and a sharp knife. Ovals may be marked out by using a string and two pins. Tie the ends of a fine string, say seven inches long, together, drive two pins two and a half inches apart and throw the loop over the pins, then place the pencil point at the knot, draw the loop taut and carry the pencil point around and an oval, the size and shape of which can be varied by altering the pins and the length of the loop, is marked out perfectly and has only to be cut out with a sharp knife. When one is printing small negatives and only one to the sheet it is unnecessary and wasteful to sensitize more than such central portion of the paper as will be required. Of course, when making vignettes no cut-out is used. Simply spray the sensitizer on in such shape as is desired, beginning at the center and moving further and further away from the sheet while spraying it on, so as to produce soft gradations.

Combinations of color may be made by first finishing one print on the sheet, then, when washed and dried, coating such unprinted portions as may be selected with another sensitizer and proceeding as before. Hand work may also be indulged in to any desired extent, various designs can be worked on with water color or charcoal (using fixative after the latter) if it is thought best, I think, however, that these pretty things as a border to the print are an invention of the master of Hades himself. They detract from the real picture, call attention to something foreign to the picture itself and are a nuisance. They are only good if the picture be bad, then they are more or less a blessing. Just a plain cut-out seems best and it is surprising how much better most pictures look with only the *interesting portion* printed. Often a poor 5 x 7 makes a perfect gem 3 x 6 or even smaller, it is not size that tells, but quality, interest, story-telling properties, and only too often these cardinal points are associated with much uninteresting and useless matter on our negatives. The vignettes or straggling shapes are often useful in this respect while they unquestionably lend charm to the character of the book, often appearing so delicate and odd as to deceive people into thinking them wash drawings.

When a sufficient number of prints are collected it only remains to arrange them in the desired order and bind or have them bound. I prefer the latter. A good binding can be had for far less than a first-class album costs, and one knows it is done in proper shape. My preference is for black imitation seal with gold lettering and the top and end of the leaves gilded. One can, however, make very tasteful bindings if he or she knows how, and thus proudly claim the entire book as his or her own work from beginning to end. I fancy that all who try this idea will be greatly pleased with the appearance of the completed work, and will marvel at the beauty of their pictures for, thus made, one's pictures have an indefinable air of superiority possessed by no other method; they can be examined with comfort and pleasure, shown with pride and kept with ease, all of which cannot be said of loose prints even on ever so fine mounts.

NEGATIVE BY E. S. CURTIS

A SQUAW.

NEGATIVE BY ARNOLD GENTHE

IN MARIN COUNTY.

WHAT THE SLIDE-MAKER SHOULD STRIVE FOR.

TOGETHER WITH SOME SMALL GRUMBLING UPON EXISTING METHODS.

NEGATIVE BY EDWIN R. JACKSON

THE COWBOY.

THE efforts of the *American Amateur Photographer*, in its constant attempt to raise the quality of the work submitted to the American Lantern Slide Interchange, should receive the support of everyone. This magazine last year opposed the plan of accepting, without examination, a stipulated number of slides from each club, a plan which resulted in the circulation of many slides that should never have been allowed to pass a preliminary examination by the club submitting the set, a method of procedure that should be universal.

The former plan of requiring slides submitted to a competent committee for examination is again in force, and will undoubtedly give much greater satisfaction. From the standpoint of those who have done much of the drudgery in gathering the club contributions, and of showing the Exchange sets, the examining committees of the various clubs should vigorously insist upon a compliance with the rule which provides that slides must be of general interest. A club soon grows weary when picture after picture is flashed upon the screen which, although technically good, or even perfect slides, do not possess that intrinsic value which holds the attention of the audience. Wornout subjects should also be tabooed. The traveling kits of the Interchange are filled with "The Village Blacksmith's," "Country Roads" and "Portraits." More descriptive matter should be given with the slides, as many of the pictures will command a second look in which new beauties may be seen if accompanied by a few words of description aside from the bare title. So common have these simple titles become that at a recent exhibition, before club members only, it was suggested, apropos of the subject, that the audience guess the names of the pictures. In only five or six slides out of the evening's exhibit did the audience fail to name the slide exactly as the maker had christened it.

The one aim of the lantern slide maker should be to throw upon the canvas a picture that causes an involuntary exclamation of approbation upon its appearance, a comparison of the descriptive matter with the picture in order to verify what is said about it, and after its place has been taken by another, a pleasant remembrance lingering in mind with a wish that the lantern operator had gone just a little slower.

HOW TO WORK BRADLEY PLATINUM PAPER.

WITH A DESCRIPTION OF ITS CHARACTERISTICS.

By John Bradley.

The first and last desire, in fact the end of successful photography is the finished print. A negative is, of course, essential, but the print is the real purport of what we have striven to picture to our friends. We, who are interested in photography, have all made prints, or think we have, but when we visit an exhibition and some beautiful piece of photographic work catches the eye and we stand in admiration before it, the first thing we ask is, "What paper is it made on?" We need not detail here the many processes for the production of prints from negatives. We all know that the platinum print is the highest point to be reached in photographic printing, because it is the only permanent metal, and the one process that yields satisfaction, both from its simple manipulation and the artistic effect gained; yielding those exquisitely graduated tones of deepest black, the softest gray and purest white.

NEGATIVE BY TABER STANDING BEAR.

The simplicity, quickness and directness of the method in making prints on Platinum paper commends itself at once. The old idea that Platinum printing is difficult and expensive is a thing of the past, for it has been brought to such a state of perfection by the makers that no one need for a moment hesitate to give it a trial. Any negative that yields a

good effect on silver paper will give a good print. Negatives of a good black for high lights and clear lights for the shadows in the finished print yield best results.

The sensitized surface before exposure to light is of a lemon-yellow color. During exposure the parts affected by light become a pale grayish brown, and sometimes an orange tint under those parts of the negative which present clear glass. As a general rule all parts of the picture, except the highest lights, should be visible when exposure is complete. The paper, both before and after exposure, is very sensitive to light, but it is not necessary to use a dark room to load the printing frames as the whole operation can be conducted in subdued daylight. Any portion of the print can be developed, therefore, the paper has a distinct advantage over other papers, as air bells and spots are obviated by simply dipping a finger in the developer and touching those places where the developer has not come in contact with the print.

The method of printing is very simple. The paper is taken from the tubes in which it is packed, the yellow side of the sheet is placed in contact with the negative, and printed the same as blue prints or silver paper. Then it is taken from the frame and passed through the developer, face down. If the exposure is correct the development proceeds rapidly until it reaches the limit of exposure, when it stops and nothing will make it go further — *viz.: the development will only take place so far as light has acted on the sensitive surface of the print.* When development is complete the print is placed in a weak solution of hydrochloric acid and water for about ten minutes, and then washed about fifteen minutes and dried. The paper itself is an exceedingly fine, heavy grade, and comes in two surfaces, smooth and rough. The developer sold with the paper keeps indefinitely, both before and after using, in fact a mixture of old and new developer seems to give best results.

The time of exposure is, of course, dependent upon the strength of the light and the density of the negatives. As a general rule about half the exposure given to silver papers will be found all that is necessary. Artificial light can also be used with satisfaction when, from some reason, the printing is made necessary at night.

Some photographers prefer to develop by brush. As the chemical coating of the paper is almost insoluble in glycerine, a mixture composed of one ounce of glycerine and eight ounces of developer will be found about right. The solution is applied to the paper by means of smooth, light strokes of the brush and provided there is plenty of the solution on the brush, no lines or marks will show. In selecting a brush the preference should be given to one bound with rubber or gutta percha. The tin bindings on the cheap brushes are liable to scratch the surface of the paper.

Should sepia tones be desired, the same paper and the same developer is used only there is added to each eight ounces of the developer one ounce of the Bradley Sepia Solution. The whole is heated until it begins to steam, and the print is then developed as usual. More of the sepia solution gives tones approaching the exquisite Bartollozi reds. Never use tin or metal trays to hold developer; use rubber or porcelain. The paper should be kept as dry as possible, as damp paper gives flat results. The prints after being finished can be colored most beautifully by using any of the well known water colors.

NEGATIVE BY E. S. CURTIS

THE CHIEF.

PRESIDENT ERWIN'S DEPARTURE.

HE WILL OBTAIN MATERIAL AND ILLUSTRATIONS FOR "CAMERA CRAFT."

NEGATIVE BY W. J. STREET

SELDOM has the departure of a San Franciscan to foreign shores been attended by the demonstration that marked the sailing of James W. Erwin, President of the Camera Club, who left on July 17th for the Philippines and China on the U. S. transport "Sumner." Although the sailing date of the transport was uncertain and the news of President Erwin's departure a surprise, arrangements were quickly completed to see him off in befitting style. Through the courtesy of the California Northwestern Railroad the bay steamer "James M. Donohue" was placed at the disposal of the club members. It was not known until the sixteenth that the transport would sail on the next day, but with this meagre notice a large number of club members were on board the "Donohue" when she steamed from the slip with flags and bunting flying and the ensign of the club fluttering in the stiff breeze. Proceeding to the transport dock, where the transport, the Fifteenth Regiment on board, was awaiting the signal for departure, the "Donohue" drew up alongside and the club fired a broadside at her. A moment later President Erwin was discovered returning the fire from the bridge of the transport, while from the infantry band below came the joyous strains of "There'll Be a Hot Time," etc., etc. Then the tune changed to "America," and the big transport cast off her line and made for the stream, while the Camera Club boat followed her down the way and the crowd on board bade the President a noisy farewell.

Mr. Erwin goes to the Philippines on government business and while there will obtain material for an article to appear in the Philippine number of CAMERA CRAFT in October. He has two cameras and will bring back numerous illustrations. Miss Marjorie Erwin, his daughter, accompanied him. It may be possible that upon reaching Nagasaki the "Sumner" will be ordered to transport her troops to China. In this event Miss Erwin will be left in Japan, and Mr. Erwin will continue with the troops. In any event Mr. Erwin will visit China, as his investigations will carry him there.

This is not the first time Mr. Erwin has been commissioned by the Postmaster-General to investigate the postal affairs of our newly acquired territory. Two years ago he was sent to Cuba to reorganize the postal service there. Before he returned to San Francisco the service was in perfect condition.

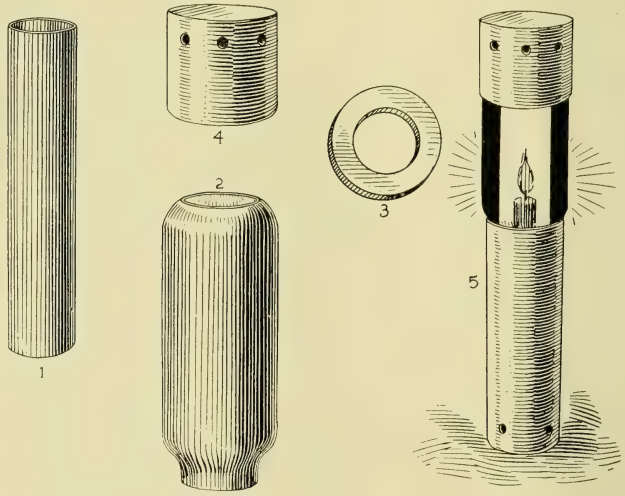
NEGATIVE BY CHAS. WEIDNER

PRESIDENT JAMES W. ERWIN OF THE CALIFORNIA CAMERA CLUB AND HIS DAUGHTER, MARJORIE, ON BOARD THE U. S. TRANSPORT "SUMNER" SHORTLY BEFORE ITS DEPARTURE FOR THE ORIENT, WHERE MR. ERWIN GOES ON GOVERNMENT BUSINESS AND AS THE REPRESENTATIVE OF CAMERA CRAFT

A RAY-FILTER DARK-ROOM LANTERN.

By H. D'Arcy Power, M. D.

Some two years ago or more I attempted to make a dark-room lantern by sinking an incandescent electric light globe into a glass jar of potassium bichromate. For the space of five minutes the experiment was a brilliant success, then ensued darkness and confusion in the household, and one more crime was added to the score of the camera fiend. The fluid had penetrated the plaster of the globe, short circuited the current, and burned out the fuses. That ended my experimentation for the time; but the fine illumination of my dark-room during those triumphant five minutes lived in my memory, so that when I recently read of the results of Mr. Howard Farmer of England, who found that with a bichromate cell, three-eighths of an inch thick, he obtained a brilliant



1. STRAIGHT CHIMNEY.
2. GLOBE CHIMNEY.
3. RUBBER RING.
4. IRON CAP.
5. COMPLETE LANTERN.

illumination equal to ten-candle power, and two hundred and fifty times safer than orange glass, my experimental ardor was again fired. This time I started differently. I have in my room an Argand burner reading lamp, and my desire was to surround this with a cell that I could fill with potassium bichromate, or other solution, and this is how I have succeeded.

There are, among others, two forms of chimneys in use with the Welsbach burner; one a straight form (Fig. 1), the other larger with a straight bulge in the center (Fig. 2). The first will fit inside the second, leaving a clear space between. Close this space at the bottom, and we have an excellent glass cell. This is readily effected by means of a rubber ring (Fig. 3), which any rubber store will cut and fit. The cell so made will fit on any gas burner and on most lamps, or a candle can be placed inside. The only provision necessary is to

prevent the escape of white light from the top and its reflection from the ceiling. This is readily accomplished by capping it with a small tube of sheet iron, closed at the top, and with two or three perforations at one side (Fig. 4). My own arrangement has a similar tube on the bottom, which acts as a down guard when the cell is on a lamp, and as a support when used with a candle. Fig. 5 shows it thus complete.

Now, what is the value of such a lamp? Simply this, that with one candle an ordinary room can be so well illuminated that print can be read on its walls, and yet, without any screening of its flame, the fastest plate can lie in its full light for five minutes without fogging. When a hundred-candle power Welsbach was tried under like conditions fogging occurred after sixty seconds, but such a test is entirely beyond any possible requirements. The fluid in the cell for ordinary plates is a saturated solution of potassium bichromate, a salt that can be bought anywhere, and for a mere trifle. If isochromatic plates are to be developed a fluid suited to their special sensibility must be used. The plates in general use are sensitized for the yellow and green, and for them the best solution is made by dissolving half a dram of carmine in three ounces of a saturated solution of lithium carbonate, and diluting the resulting fluid with a saturated solution of picric acid until it transmits enough light for comfortable work (about 16 ozs.). It will filter out all rays except the extreme red, up to line C, and while giving an illumination more brilliant than ruby glass, will be perfectly safe for isochromatic plates. For those engaged in three-color work solutions of other colors would be necessary, and I would refer them to a translation of a paper by Alex. Popowitzky in the British Journal of Photography for October 20, 1899.

AT SANTA CRUZ.

NEGATIVE BY W. J. FIATT

(One of the most successful pictures taken upon the occasion of the recent Camera Club outing at Santa Cruz.)

AT THE PARIS EXPOSITION.

EXTRACTS FROM THE SERIES OF REVIEWS, BY ROBERT DEMACHY, IN THE "BRITISH AMATEUR PHOTOGRAPHER."

Photography is placed at the Paris International Exhibition in the sections of Liberal Arts, alongside of geography, musical instruments, etc. France is the only country which has, properly speaking, a class — a gallery wholly devoted to the exhibition of photographs. You must hunt here and there for the photographical exhibits of other countries. They are all in the same building, of course, and in the same part of the building, but the Liberal Arts Hall is big enough to make this work tedious. So we will try to give our readers a general idea of the representation of photography from a pictorial point of view at the Paris Exhibition, after having examined the different sections with the intention of comparing the progress that has been made in each country during the last ten years in this particular branch of our art.

THE FRENCH SECTION.

In the French section there are three well-defined classes: The Photo Club Exhibition, the Amateurs' Exhibition, and the Professionals'. Each one has its own characteristics. The Photo Club Exhibition is undoubtedly at the head, the Amateurs follow, and the Professionals — are professionals in the strict sense of the word.

There are no such absolute distinctions in what we have been able to see of English photography. We have no men like Craig Annan, Hollyer, or Crooke over here, so much so that amongst the French public these gentlemen are generally believed to be amateurs. The only difference between our professional of today and the professional of ten years ago is that nowadays greater care is given to *pretty* composition, but no attempt has been made to put the model in simple, real and homelike surroundings or to give life and expression to his features. Values are ignored, of course, and retouching is worse than ever. Smooth, balloon-like cheeks and oedemated necks are the rule, and the doll-like polished aspect of the model is the same as it always has been, except in the very first times of photography — in Salomon's time — when taste was not as yet perverted. I do not mean to say that this excessive retouching is entirely confined to the French section; some fine examples of it may be found on the outside of Mr. Craigie's alcove (Technical Photography); but the best work of French professionals I have always found to be spoilt by excess of retouching.

UNSATISFACTORY VIGNETTING.

Also by their detestable manner of vignetting. The practice is not bad in itself, if proper gradation is kept between the color of the background and the white protected paper. But this is never done; neither do professionals seem to understand that a vignette must on no account be regular in form, say a perfect oval, but must vary according to the subject. The strength of the vignetted background must not be uniform either; some parts ought to be darker than others, according to the lighting of the subject. All this is evident enough; still, professionals stick to their round or oval vignetting-plates, and show us the same dark stain, surrounded by the same white paper, without paying the least attention to the ever-varying conditions of the subject itself. The only progress I can find in this special class — in France and in other countries, Austria and America principally — is confined to a certain *recherche* in the pose, which, unhappily, leads most photographers to excess in this direction, and they lose all simplicity. The models are conscious that they are pretty and well-dressed, and they are doing their best to look fascinating or wicked.

SELF-CONSCIOUSNESS IN PORTRAITURE.

I am not at all adverse to a model looking conscious of the camera. In the finest portraits of Velasquez and Rembrandt and of the more modern schools the models are distinctly conscious and meant to be so. This is not distressing in the least. Yet here is a criticism, which is commonly found in the photographic reviews, because the critic makes a confusion between portraits and genre pictures, and between consciousness and self-consciousness. Of course, in a photograph of several ladies taking their afternoon tea it would seem strange to see all the models staring out of the picture, without paying the smallest attention to their cups and saucers. Not so in a portrait, when it is quite natural that the model should look at the painter, or, at least, be conscious of his presence and his occupation. But between

this and self-consciousness there is a big difference. And it is self-consciousness—consciousness of a pretty face, a pretty dress, and an all-conquering leer—that I have noticed in nearly all the French portraits by professionals, and also amongst other sections.

LOCATION OF THE EXHIBITION.

The Photo Club Exhibition, Class XII., is near the Eiffel Tower, quite at the end of the Avenue de Suffren Gallery. It is composed of alcoves and partitions lit by high bay windows. Actually, there is too much light, and we are anxiously waiting for the *velum* promised, but not delivered yet, by an all-potent and invisible administration. The walls are covered with pale green stuff; the wainscotting up to the "Cimaise" is of warm brown with decorative designs of a paler shade. Above the line of frames there is a wide band of green stuff, decorated with yellow sunflowers, and higher up a narrower band of repousse red copper. The ceiling—arched—is very tastefully decorated with allegorical designs, in different tints of yellow and orange, the artist having composed classical Greek friezes, with subjects taken from cinematograph films, such as dancers in flowing robes, athletes running and jumping, etc. The general effect is extremely good.

AMERICA ABSTAINS FROM SHOWING.

The Americans are disappointing, the New York Camera Club, followed by the most distinguished pictorial photographers of the United States, having decided to boycott the French Exhibition on account of the actual regulations which do not allow of photographs being exhibited in the Fine Arts Palace, exclusively devoted to modern and retrospective painting, engraving, drawing and sculpture. We are the very first to regret this decision, which deprives us of the profitable study of many remarkable works, and we are sure that our trans-Atlantic colleagues will experience a similar feeling of regret when they will have visited the English representative collection, the Vienna Camera Club, and the Photo Club exhibitions; also when they will have passed through the galleries of the Grand Palais des Beaux Arts and appreciated the masterpieces of art it contains. For I am afraid that the very best of pictorial photographs would have made a very poor show indeed in such august company, and that after several miles of such paintings nobody would have stopped to look at them. This is not personal to American photography, of course; our photographs, in the same conditions, would have had precisely the same fate.

PHOTOGRAPHS AND PAINTINGS.

And, from another point of view, that of the education of the public, who, we are obliged to acknowledge it, is absolutely ignorant as a whole of the pictorial movement of photography, is it not wiser to show our actual attempts and experiments side by side with the old-style photograph and let the public compare, than to force ourselves upon its vision when it has been saturated with color and to ask for its impartial verdict when it has feasted its eyes on the masterpieces of the very first artists of the whole world?

The result of this decision is that America is represented by Baker's Art Gallery—genre pictures, painted backgrounds and sentimental posing, with such Christmas number's titles as "The Old, Old Story," "The Song of the Kettle," etc; by the pretty and over-retouched models of Steckel, and the enlarged snap-shots of the Eastman Company. Also by some extraordinary photos of crowded auditoriums, all the figures on the extreme ends of the picture being dlstorted in a hideous gutta percha fashion by the badly corrected lens. Still, there are two small oval portraits by W. Brenner that have escaped the Draconian rules of the American clubs. They are quite charming.

THE PUBLIC MISLED.

It is deeply to be regretted that men of all nationalities, working with the same idea and for the same ends, should not have appointed beforehand a sort of representative in each of their countries. These deputies would have corresponded with each other and a mutual understanding would no doubt have taken place. Empowered with the faculty of choosing amongst their countrymen's work the most important and representative pictures, they would have done what Mr. Craigie has well succeeded in doing, and we would have had in nearly every section a protestation exhibition, a fighting exhibition, call it what you like, alongside of our old enemy, commonplace and conventional photography. Instead of this, the American, the Belgian and the German Achilles have retired to their tents, and, worse than all, the millions of visitors, absolutely ignorant of their existence, simply and honestly believe that what they are looking at is the very best sample of the very best work that the photographers of these countries have been able to turn out. "*Et c'est dommage.*"

CAMERA CRAFT

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"NUMBERS" THAT COUNT

The editor of the *Photographic Times*, commenting upon the statement made by CAMERA CRAFT to the effect that the California Camera Club was the largest in the world, said in a recent number:

"But why claim that the California Camera Club is the largest club in the world? We believe it to be the largest club in the States, but there are many clubs on the other side of the water with a much larger roster of members than the California Club can claim. And, any way, it is not always 'numbers' that counts."

Since the publication of this paragraph, an earnest effort has been made to obtain the names of the clubs on "the other side of the water" whose rosters contain more names than that of the California Club, but as yet success has not crowned our efforts. On the other hand, we are prepared to reiterate the former statement, and to declare that the California Camera Club is the largest club in the world. We will continue to entertain this opinion until the editor of the *Times* produces the name of the club that has more than four hundred and twenty-five members.

However, to us of California, this portion of the paragraph can be passed over, for the editor of the *Times* says that he believes the California Club to be the "largest in the States." In itself this is no small honor, but to be told that "it is not always 'numbers' that counts" is peculiarly humiliating. The opinion has always prevailed out here that the California Club members were skilled mathematicians. The officers of the club are so proud of their ability to use numbers that they always print them on the tickets to the monthly entertainments, at which the audience never "numbers" less than three thousand. We are quite sure that the last tickets announced that the entertainment was the one hundred and twenty-second held by the club. Taking into consideration the fact that the club only began to number its entertainments in 1890, when it was incorporated, this portion of the count seems to be accurate. In other matters the officers of the club can furnish figures that

"count." They say that no other club in the world leads their own in the number of overnight outings and expeditions to interesting portions of the country during a similar period.

It has been said times without number that the arrival of the California slides in the various clubs of the Slide Interchange is the most welcome event of the year. So kindly have the people "across the water" felt toward the California slides that they have not allowed several sets to return.

It is a peculiar fact that several of the New York publications entertain the *Times*' idea as to "numbers." *Camera Notes*, the official organ of the New York Camera Club, printed but one picture from the Chicago salon. That one was made by a member of the California Club.

OUR ILLUSTRATIONS

We wish to acknowledge our indebtedness to the photographers who have so kindly furnished us with the illustrations for this number of CAMERA CRAFT. None of the pictures presented have been reproduced before and it is only through the courtesy of these artists that we are enabled to furnish an issue destined to be of historical interest. The monthly portrait is by Mr. E. S. Curtis, whose collection of Indian photographs is one of the best in the West. Mr. Curtis was connected with the Harriman expedition to Alaska in the capacity of official photographer and made the full journey of 9000 miles over a practically unknown coast. Mr. Curtis is an honorary life member of the Mazamas Club of Portland, having been thus honored in recognition of his explorations in the mountains of the Northwest. He has ascended Mt. Ranier five times, on one occasion taking up eighty members of the Mazamas Club, the largest party ever making the trip. He is now engaged in making pictures of the Moki Indians.

Mr. Frank La Roche of Seattle is another photographer represented in this number who has a large collection of Indian photographs. His collections of curios from the Puget Sound and Alaska Indians has gained for his studio the name of being one of the points of interest in Seattle.

To both of these artists and to the others whose names appear under their respective pictures CAMERA CRAFT wishes to again acknowledge its thanks.

Judging from the harsh criticism leveled at the heads of those in charge of the photographic exhibits at the Paris Fair by the European journals, it would seem that gross mismanagement and a short-sighted policy has almost destroyed the effect the show would have had upon the photographers of the world had the proper attention been paid to their interests.

The publishers are constrained to draw attention to the number of new advertisements in this issue. Attendant upon the increase in the number of advertising pages will come an increase in the size of the body of the magazine.

CAMERA CRAFT notes with regret the death of J. D. Edwards of Atlanta, Ga. Mr. Edwards was one of the most prominent photographers of the South, and his work has been accepted as representative of Southern progress.

Mr. William Hienn of Milwaukee will act as the special representative of CAMERA CRAFT at the Milwaukee Convention.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

The Photographic Times—A pleasant and a useful number, though not containing anything of striking interest or novelty. Dr. C. Hines makes a well-justified plea for the greater advancement of stereoscopic photography. Mr. Fayette Clute of San Francisco has a pointed and useful article on negative making, wherein he demands correctness of exposure as the great essential and advocates more general use of exposure meters. Mr. N. E. Emmens, in a descriptive article, "Along the Clove," also commends the exposure meter. Perhaps the most distinctly valuable paper is that on "The Neck in Portraiture," by Frank M. Sutcliffe. The serial article on lantern-slide making, by "Primrose Hill," contains a useful device for even illumination. "The Early History of Photography," and some articles of minor interest complete the number, which is adorned by a number of beautiful reproductions, several being illustrations of German photographic art.

In *Modern Printing Processes*, Henry G. Abbott has given a concise description of the latest printing methods, gum bichromate and platinotype, by the glycerine process. This little book will be of great assistance to the seeker after new ideas prininting, and especially to the deeper thinkers who desire to throw individuality into their work. Paper, 35 cents. Geo. K. Hazlett & Co., Chicago.

The *Photo-Beacon* has a number of useful things between its covers, among which we would note Mr. C. W. Hackett's paper on stereo pictures with a single lens; also Dr. Hilt's description of how to keep our developers from oxidizing; and an excellent scheme for firing flash powder by means of a blow-pipe and a candle. This month's contribution by Mr. J. A. Hodges, on "Artistic Landscape Photography," can be read and re-read with interest.

Anthony's Photographic Bulletin — The July number of this journal contains a broad and valuable essay entitled "Unconventional Photography Pictorially Considered," by H. McBean Johnstone, a useful article, "Toning with Ferrocyanides," and a very excellent paper reproduced from the English *Amateur Photographer*, on the subject of studio lighting, by F. M. Sutcliffe. Another article, containing information of value, is on the making of strip negatives, by the Rev. F. C. Lambert.

Photo-American. — The *Photo-American* has quite a few good things; among them, Mr. C. Thael's article in praise of slow plates. Mr. E. W. Newcomb shows that which no sensible man ought to dispute, that, under certain, though not very frequent, circumstances, a glossy-surfaced positive may have a value in an art sense; that is, when it adds to the luminosity of otherwise choked shadows, or improves necessary half lights. A paper on photography in Bermuda, and a reprint from the *British Journal of Photography*, on dark vignettes and their production, are other features of this issue.

The Photo Era—This is a star number in the matter of illustrations. The reproductions of H. B. Pearson's "In Manchester Woods," "The Dancing Lesson" of R. Eickmeyer, Jr., and the "Portrait" by H. W. Taylor, make us proud of photography as an art. The articles are largely descriptive or critical, the *piece de resistance* of the number being the paper of the Rev. F. S. Dobbins on "Telephotography," which will surely make many converts, and be of assistance to all who use this valuable addition to our armamentarium.

Among foreign journals, *Le Photogramme* of Paris issued an exposition supplement remarkable for some extremely fine illustrations reproduced in phototypegravure in a manner that leaves nothing to be desired. Most of the reading space is taken up by particulars concerning the International Congress of Photography to be held this month at Paris. The following are some of the subjects to be dealt with at this important meeting: Definition and Measure of the Sensibility of Plates; Practical Study of Photometry from the Photographic Point of View; Research into the Standards of Colored Lights, and Methods of Their Comparison; Standards of Colored Screens and Pigmentary Colors; Characteristics and Classification of Optical Glasses; Precise Classification of the Thickness of Glass Plates Used in Photography; Dimensions of Cinematograph Bands, Their Separation, Form and Spacing of the Perforations; Size of the Images; Expression and Denomination of Photographic Formulæ; Characteristics of Objectives and Practical Numbering of Diaphragms; Project of Adhesion to the Decimal Classification of Photographic Bibliography; Protection of Property

in Photographic Works; Complete Assimilation of the Law of Photographic to Graphic and Artistic Works; Distinction of the Rights of Propr'etorship and the Rights of Employment. From the above program it is evident that the Congress is bent on practical work, and it is to be sincerely hoped that they may arrive at conclusions capable of general acceptance.

Photo-Gazette of Paris — We have to acknowledge the receipt of several back numbers of this excellent publication. Many of the illustrations are charming, and of some of the articles we hope to give an abstract in the future.

Der Amateur-Photograph, Dusseldorf — This magazine, among other useful articles, contains one on "Sea Photography," both on and under its surface. From this we learn that Captain Boiteux, with his electrical apparatus, obtained good pictures at the sea bottom, ten feet from the camera.

We beg to acknowledge the receipt of the monthly bulletin of the Italian Photographic Society. We noticed a little suggestion therein which is likely to prove useful to many who take photographs in dark places, namely, to place in front of the candle, usually used as a focusing point on such occasions, a piece of ground glass on which some suitable lines or letters are marked.

The death of Stephen Crane was a lamentable loss to letters which every countryman of this man of genius deplores. He had made international fame to a degree won by few, and his last work was maturing into something finer and stronger even than his first. Of the very last is the series of papers on "Great Battles of the World," which has been appearing in the *New Lippincott Magazine*. This was a task undertaken with enthusiasm, because it was in the very spirit of all his best productions, and it afforded him chances for wide reading on warfare which he eagerly embraced.

NOTES.

A new Zeiss anastigmat is to be placed on the market, and will be known as the "Unar." Each combination will be composed of two single lenses, uncemented, and the new product will be a modification of the Zeiss Planar. It works at F 4.5, and will be somewhat lower in price than the Planar. A new portrait lens is also announced by Voightlaender, working at F 2.3. This should be a snap for baby photos.

A very simple yet practical exposure meter has been placed on the market by Geo. H. Miller of Hartford, Conn. This little assistant to those who have not yet mastered exposure, is a card about three inches square, upon which a circular disc is made to revolve. Conditions are provided for the quality of the light from intense sunlight to the very dull, also for the various months of the year and the time of the day. These conditions are taken into consideration, together with speed of plate and diaphragm to be used, and the result is the necessary exposure.

A new photo supply house has been opened in San Francisco with the striking name of "Kameroptico" displayed above its doors. The proprietors are Henry C. Lassen and Louis H. Bien, both of whom are well known business men. The new firm is located at 139 Stockton Street, near the City of Paris.

The committee of the Photographers' Association of Portland, having in charge the proposed convention in Oregon, has decided to postpone the date of the meeting to October 25th, 26th and 27th. The change was deemed advisable by the committee after conferring with the various manufacturers of photographic supplies. The manufacturers stated that their exhibits in the East would not be at the disposal of the association until the dates mentioned.

Mr. and Mrs. A. J. Stephens of San Diego are among the California attendants at the Milwaukee Convention.

Paul Lotz left recently for Europe, where he will study the recent developments in photography on the continent. He will visit the Paris Exposition, and then proceed to Berlin, Vienna, London, St. Petersburg, Moscow, Rome, Jerusalem and the Orient.

Mr. Frank Barrows, who has represented G. Gennert of New York in San Francisco for the past six months, will return East on the first of September. The dealers of the West will miss him.

F. D. Burleigh of Springfield, Ill., is now in California as the representative of the Eastman Kodak Co. This is his first trip West, and his expressions of satisfaction are frequent and hearty.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

To remove silver stains from your negatives, if you are so unlucky as to have used too much glycerine in your bath, thereby causing them to stick to the paper, soak them well in plain water, and prepare a solution of cyanide of postassium dissolved in alcohol, ten grains to an ounce; when the films are thoroughly wet rub gently with a tuft of cotton dipped in the cyanide solution.

Fine cloud effects may be put in negatives by first flowing the back of the negative with ground glass substitute, and then working in the clouds with a crayon and stump. After the general forms are put in be sure to give the direction of light the same as in the landscape by strengthening the edges. Of course, this can only be done on a negative where the sky "prints in" to some extent.

A negative weakens in a solution of ferricyanide of potash; it also weakens in a solution of perchloride of iron, but if a weak negative be plunged into perchloride of iron ten per cent strong, and then in a ferricyanide of potash solution of the same strength, it will become greenish blue by the reaction in the gelatine itself, and will increase in strength according to the perseverance in passing the negative successively through the different solutions. I have not as yet experimented fully with this process, but it is at least interesting and worthy of trial.

NEGATIVE BY E. C. CLEMENT A NATIVE.

(Three hours of hard work and endless patience were necessary in securing this picture.)

Many amateurs lose good pictures by holding the camera too loosely in their hands. You can not get it too solid, even for snaps. It should be held tightly against the body or rested on something solid. There is no such thing as a really instantaneous exposure; the term employed is used to designate all exposures of short duration. Very few shutters work inside of a quarter of a second, hence the necessity of keeping the camera steady.

The bulb release is applied to nearly all of the cameras nowadays, even to the cheaper box cameras, as it has been found to be hardly practical to "push the button" twice in opening and closing the shutter when time exposures are desired, as the exposure cannot be obtained without vibration, thus producing blurr.

When the bulb is absent, however, and a time exposure is desired, the best plan is to protect the lens with a holder slide or piece of cardboard, or in the absence of either, the operator's hat or his hand will answer. With the lens so protected, open the shutter, and when all is ready make the exposure by removing the protecting article, whatever it may be, for the required time, replacing it again when the exposure is completed and closing the shutter afterward..

NOTE—All communications addressed to CAMERA CRAFT requesting information on any subject will be cheerfully answered in this department.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

PLATE AND DEVELOPER.

In view work I maintain that a long exposure and weak developer give the best results in nearly every case. When a strong developer is used, there is much greater likelihood of hard negatives, and, as a strong developer requires a quick exposure, it necessarily follows that less detail is obtained than with a longer exposure. For instance, take a landscape with fair illumination in the high lights and half shadows, and with dense shadows in the foreground. In this case a short exposure and strong developer will certainly create a degree of hardness in the high lights, while the shadows will be nearly devoid of detail. On the other hand, if a longer exposure is given, and a weak developer used, thereby giving a chance to watch development and gradually bring up the image, the details in the shadows get a longer time for impression on the film and can be brought out slowly and surely, while, at the same time, the very weakness of the developing agent prevents any hardness in the high lights.

In making exposures there is one thing which should be kept continually in mind; that is the endeavor to gain a tolerably accurate idea of the actinic power or value of different colors in nature such as the greens, browns, grays, yellows and blues. This can be acquired by carefully noting the exposures and examining the negatives afterward, carrying the landscape in the eye as much as possible. It is impossible to depend with any degree of accuracy upon the exposure given one subject and applying it to another. Subjects though evenly lighted have often a very different actinic value.

For landscape work a slow plate is desirable as it gives a more brilliant image, while a plate of great speed has a tendency to softness, or more properly speaking, flatness. The opposite is the case in portraiture; here the fast plate is desirable, for contrasts should be avoided in the commercial run of work.

More latitude is obtained with a slow plate, both in exposure and development. While one may be perfectly familiar with the lens, and generally hit the right exposure, at the same time the image on the ground glass is often deceptive, and there are numerous occasions when even the most expert photographer is deceived. The exposure on a slow plate should be, for instance, ten seconds, and if one should happen to give twelve or even fourteen, the difference in the result would not be noticeable, while it might ruin a negative on a quick plate. There is too much of a tendency nowadays to rush to rapid plates and quick developers. The number of workers who insist upon having the very quickest plate for ordinary subjects, notwithstanding the fact that all the demonstrators of the plate companies tell them their danger, is exceedingly large.

While we are on the subject, I want to quote Mr. Lussier of the Cramer Dry Plate Co. who recently said in a conversation apropos of the subject: "When a photographer is using Cramer plates and has trouble, he blames the plate; when he is using Seed plates and makes a failure, he does likewise; if they used both plates together, they would probably have trouble with both of them."

That is the situation in a nutshell, and the reason for most of the photographers' troubles lies in their own carelessness.

J. L.—Litmus is a vegetable substance prepared from lichens collected on the rocks adjoining the sea. It is blue in color, and for the preparation of test papers is digested in hot water. Porous paper is dipped in the solution and dried. This makes the paper for testing acidity; the red paper is first coated and then passed through a weak solution of sulphuric acid. Litmus paper is very sensitive, and when testing for acid or alkali the paper should not turn a decided color for fifteen or twenty seconds, unless a decidedly acid or alkaline bath is required.

M. E. C.—Bromide of potassium is prepared by adding bromine to caustic potash. It retards development and increases density. It is useful to help keep the whites clear in all bromide papers, but if used with excess will cause a greenish deposit.

THE DEMONSTRATOR.

F. I. M.

A New Intensifier for Negatives

By far the best method for reinforcing plates that I have yet employed is the formula presented by Messrs. Lumier and Seyewetz to the Societe Francaise de Photographic recently. A bath is formed of 1 gramme iodide of mercury, 10 grammes sulphite of soda, and 100 c. c. water; the proportion of sulphite of soda may be varied within certain limits. The plate, after leaving the hypo, is rinsed and placed in the above bath; the image gradually takes a brown color, and the intensification may be stopped at any desired point. This image is not yet in a stable condition, and will take a yellow-green color upon exposure to air. The image is fixed by a solution of one of the well-known reducing agents, such as pyro, hydrochinon, metol, or paramidophenol. The iodide of silver is thus entirely transformed to metallic silver, the image then being free from iodine, and a permanent intensification the result. If desired the image can again be reduced by immersion in the hypo bath, which dissolves out a portion of the iodide of silver. This must be done, however, before the final reduction in the second bath.

A Copying Hint

The following suggestion upon copying is furnished by Mr. H. G. Harris, whose experience in this work has been great: Place the print to be copied at an angle to a side-light. If the window is near a corner have the copying board facing directly across the corner. Stand directly in front of the print, and if there is any reflection of light shown, turn it further from the light. Use a stop at least one-half the size of the opening in the lens and give a full exposure. By the use of the following developer a clear and strong negative can be obtained on a Cramer-Banner plate, and the result will far exceed the old wet-plate process. Metol, 50 grs.; hydrochinon, 55 grs.; dissolve in 35 ozs. water; add sulphite of soda crystals, 2 ozs.; carbonate of soda crystals, 1¼ ozs; boil well until all is dissolved, and keep as a one-solution developer in a well-stopped bottle. For use take 5 ozs. of the developer and 5 ozs. of water; add 2 or 3 drams of a ten-per-cent solution of bromide of potassium, and develop well through the plate.

How to Clean Lenses

Dr. A. Miethe, the well-known optician, has given some useful information in the *Central Zeitung fur Optik und Mechanik* concerning the preservation of lenses. Says he: "Glass is a comparatively soft substance, and the fine dust deposited from the atmosphere consists mostly of minute grains of sand, at least one and a half times as hard as glass. Optical glass is softer than ordinary window glass, and to the all-pervading deposit of dust are due most of the scratches and consequent deterioration of lenses. Any material used in the process of cleaning must, therefore, be free from dust, and possess other requisite properties. First amongst these is a capacity for removing grease. Leather is frequently recommended for cleaning glass, especially wash-leather; but it is very unsuitable, as it does not remove grease, and may sometimes deposit it. Well-washed cotton cloths are far more suitable. Linen especially has the property of removing dirt and grease from glass, but it is difficult to clean quite close up to the mount with a cloth, and for this purpose pith is most suitable. The best varieties of pith are obtained from rushes, the sunflower, or the elder tree. For cleaning large lenses circular pieces of pith are glued side by side on a piece of cork, and this species of brush is passed over the surface of the lens without too much pressure. Small lenses may be cleaned with short lengths of elder pith, which may be pointed when necessary. Sometimes the dirt and grease cannot be completely removed by the process of dry cleaning, and it has frequently been recommended then to use fine precipitated chalk or rouge. Both materials are quite unsuitable, and may completely ruin the figure of the lens, or at least affect its polish. If dry polishing fails, the dirt must be removed by chemical means that will not attack the glass. Alkaline solutions, such as

ammonia, caustic soda, caustic potash, soda, or potash, may not be used — at least, such is certainly the case with some of the better lenses. They attack the glass, and repeated use will destroy the surface. In a lesser degree this is true of water also, if the glass is long in contact with it. The least harmful fluids for the removal of dirt are rectified oil of turpentine, absolute alcohol and ether. The surface should be moistened with turpentine, rubbed dry with a linen rag, and then polished with a little ether. Turpentine being a solvent of Canada balsam, care must be taken to keep it from the edges of the lenses, where they are cemented."

PRINTING ON SILK AND OTHER FABRICS

To obtain satisfactory prints on silk, satin, linen and other fabrics, it is essential that the material employed be pure and not "loaded" with metallic salts. It is also necessary to employ methods which do not destroy the characteristic softness and texture of the cloth, particularly so with silk and satin. The best results cannot be obtained if the image is contained in some film on one surface of the silk; it should be well incorporated in the silk itself. The most satisfactory results, and the finest tones, rich blue-blacks, have been secured by the following methods: The fabric is immersed in a filtered solution of 5 parts of Iceland moss and 10 parts of ammonium chloride in 500 parts of water, then passed between the rubber rolls of a perfectly clean wringing machine (an ordinary washing wringer will answer) taking care to avoid folds and creases, and hung up to dry in a warm room. It is next immersed in a bath prepared by mixing in equal volumes, *just before use*, a solution of 60 parts of nitrate of silver in 100 parts of water, passing through the rollers of the wringer and dried in the dark. Print just the depth desired in the finished print, and use a woolen cloth or piece of heavy felt behind the silk in the frame to act as a support and facilitate examination during printing. Wash well and tone in ammonium sulphocyanide, 30 parts; potash alum, 30 parts; ammonium carbonate, 1 part; gold chloride, 1 part; water, 22 parts. Fix as usual with paper prints and thoroughly wash. When the print is nearly dry it can be ironed with a warm iron.

NEGATIVE BY LEE MOOREHOUSE

WA-PA-LE-LE-KAP-HI-HI.

NEWS OF CLUBDOM.

CALIFORNIA CAMERA CLUB.

The slide exhibition and entertainment on July 12th was one of the most enjoyable of the summer. The slides shown were from the clubs of Orange, N. J., and Montreal, Ottawa and Toronto, Canada. A number of street scenes at night were the most striking things shown.

Dr. H. D'Arcy Power will give a demonstration on the evening of August 7th, after the regular meeting of the club. His subject will be "The Use of the Color Screen in Photography." He will also exhibit to the club members the new dark-room light invented by himself, a description of which will be found elsewhere in this number of CAMERA CRAFT.

At the last regular meeting of the Board of Directors it was decided to install a number of new lockers to accommodate the wants of the incoming members. At present there is not an empty locker in the club. It was also decided to improve the ventilation of the gallery. This latter improvement will call forth heartfelt sighs of relief from all those who have experienced the extreme range of humidity possible in this department of the club rooms.

W. J. Street, Chairman of the Outing Committee, is enjoying an outing on the McCloud River. He was accompanied by his family.

LOS ANGELES CAMERA CLUB.

Interest in the Los Angeles Camera Club remains unabated, notwithstanding the warm weather and absence of many members at the various seaside resorts.

At a recent meeting of the Board of Directors thirteen names were added to the active membership roll, and applications continue to come in steadily. At the last regular meeting of the club much amusement as well as instruction was afforded by the opening of "Question" and "Don't" boxes. The humorous don'ts called forth laughter and applause, while interesting discussions followed the reading of the questions. This portion of the program was productive of so much profit and pleasure that the Entertainment Committee announced it as a feature of all future meetings.

The first of the July outings, with San Juan Capistrano as its objective point, proved very successful, the special car reserved for the club on the south bound Santa Fe being well filled. Large banners, on which appeared the club yell in characters which could be read at some distance from the train, were stretched along the sides of the car proclaiming to the inhabitants of each village through which it passed that "We're the Los Angeles Camera Club." The old mission at San Juan is probably the most picturesque to be found in Southern California, the arches, broken columns, long corridors and ruined altar affording opportunities for the photographer, which fills his soul with a great joy and empties his pockets of loose change in the endeavor to secure sufficient plates and films on which to carry away all the best views. The next outing will be held at Santa Monica beach and canyon, the Los Angeles Club being the guest of its sister organization, the Santa Monica Camera Club, for the day.

About twenty members of the Pendleton Club, led by President Lee Moorehouse, spent the last Sunday in June at Bingham Springs in the mountains. Some fine pictures of Elephant Rock were taken, and the reporter who described the occasion in the *East Oregonian* said of the famous landmark: "Now he may pack his trunk and go, but his memory will be kept green by the negatives of the Camera Club."

The Washington Camera Club has instituted a series of talks on amateur photography. The first talk of the series was given by President Bedford, with "The Preparation for and the Exposure of the Plate" as his subject.

The members of the San Diego Club, led by Arthur Small, Chairman of the Outing Committee, enjoyed a pleasant trip to the Coronado Islands on July 11th.

The Sierra Amateurs' Club of Sonora spent several days at the Big Trees during the middle of July.

NEGATIVE BY E. S. CURTIS

OUR MONTHLY PORTRAIT—STUDY THE LIGHTING AND POSING EFFECTS.

INDIAN BASKETS.

Judging from the furore in the East over anything Indian, the country seems to be on the verge of an Indian craze. The society folk have gone in for collecting Indian curios, and decorations in the gaudy Indian hues are the proper thing. The studios of the Eastern photographers are now filled with "props" of an Indian nature, and many of them are most artistically decorated.

Western photographers realized the artistic merits of Indian surroundings years ago, and there are but few establishments in the West that are without Indian decoration of some nature. The most convenient articles of Indian ware obtainable for decoration are the baskets, nowhere so plentiful as in California. Collections owned by private individuals in San Francisco are said to be the most complete in the world. The many sizes, colors and shapes of the baskets has induced many a lover of the queer and beautiful to join the ranks of the collectors, and there are now several stores in San Francisco that carry large stocks from which the collector can select. Among the best of the stores is Goldsmith Bros., at 236 Sutter Street. Their selections are of the very choicest and the prices are extremely moderate.—(*Adv.*)

PATENTS.

The following patents have recently been granted:

Francis Pascell and Louis Izerable, of Lyons, France, roll holder film camera, which, after one exposure, automatically sets the film for the next exposure; John Ricketts, Ithaca, N. Y., printing frame for the use of films, by which the film is held in position by a supporting flange (Eds. note—A frame similar to this is now in use by the Multiscope & Film Co., the manufacturers of the "Al-Vista" camera, for printing from Al-Vista films); R. C. Becker, Springfield, O., magazine camera; Wm. Shakespeare, Jr., and Mary E. Low, Kalamazoo, Mich., shutter; G. W. Christman, Waterville, Minn., vignetter for portrait camera; J. L. Jenks, Pawtucket, R. I., negative washer; A. G. Adamson, London, reflector for photography by gaslight; Charles Vogenrichten, St. Louis, portrait camera vignetter; W. R. B. Chamberlain, Eastbourne, England, camera support; Edward Shoonmaker, New York, photo plate clip for holding plate during development; R. Unger, New York, developing box; Mark Barr, Bowden, England, moving picture machine.

NOTE—Printed copies, two cents.

WANTS.

Free to those seeking employment.

Three lines, one insertion, 50c. Three insertions $1.00.

To buy a gallery in a good country town in California. Will pay a fair price. Give full particulars and describe the outfit. H. B., this office.

A retoucher. B., care CAMERA CRAFT.

A gallery in San Francisco. Write, giving price and description. XYZ, this office.

A position in a photo supply store. Have had experience. Position, care CAMERA CRAFT.

A good operator, with business ability, steady and reliable, can secure a permanent position with good salary and commission, or can buy interest in one of the best paying galleries in San Francisco. Address, Reliable, CAMERA CRAFT.

For sale—A gallery in San Francisco. Price reasonable. Owner has two and cannot attend to both. Call at studio, 1104 Market Street. MERSEREAU.

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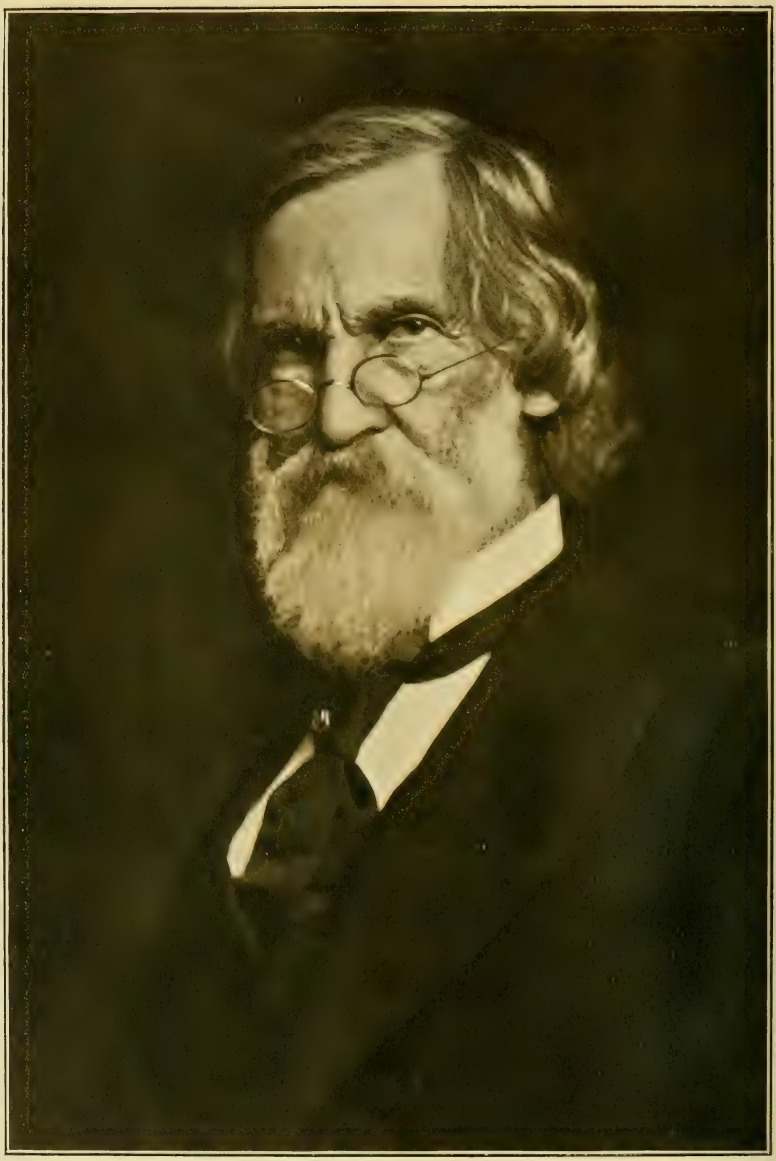


GRAND PRIZE PORTRAIT.

BEING ONE OF THE GROUP WINNING THE GRAND PORTRAIT PRIZE AT THE CONVENTION OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA, AT MILWAUKEE, JULY, 1900. BY MOORE & STEVENSON, ATLANTA, GEORGIA.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. I. SAN FRANCISCO, CALIFORNIA, SEPTEMBER, 1900. NO. 5.

SIMPLICITY, EXPRESSION AND TEXTURE IN FLOWER STUDIES.

BY O. V. LANGE.

WITH ILLUSTRATIONS BY THE WRITER.

NIGHT-BLOOMING CEREUS.

SOME TIME ago, in connection with other work, I had the pleasure of photographing specimens of seaweeds, for Professor Setchell in the Botanical Department of the University of California. These subjects for the camera strongly appealed to me because of their simplicity, as well as gracefulness of outline. It then occurred to me to try and obtain studies in land flowers, having extreme simplicity as one of the dominant motives. In the course of my investigations it soon became apparent that beauty of outline and shape in flowers were not the only artistic values that might be sought after, and that much could be added by the proper handling of the source of illumination, so as to give the best possible relief in *chearo-oscuro*, thus assisting in the rendition of texture, which constitutes much of the individuality and peculiar charm of flowers.

After much study and close observation, together with some success in this direction, there still appeared to be something lacking. I came to the conclusion that the feeling of atmosphere that should surround my subject was missing. Now, it is very easy to photograph a flower with a hard, sharp outline and, seemingly, pasted upon a black cardboard, while to surround a flower with the feeling of its having relief and atmosphere can only be accomplished by a careful selection of the background as to tint and texture.

SUNFLOWER.

The subsequent lighting of this background must sometimes be done independently of the subject in hand, so as to environ our blossoms with that peculiarly satisfying but indescribable charm called sentiment, without which they are simply machine-made photographs and not true pictures.

It will be my endeavor to try and prove the correctness of the above statements by analyzing and explaining the accompanying reproductions of flower studies. The frontispiece is a specimen of the single sunflower, which was the only one out of a lot of thirty or more that had enough artistic grace of outline to warrant its being used. One of the first requisites in obtaining pleasing effects lies in the selection of shape, size and color. The shape should have variety, mingled with a certain amount of symmetry and dignity. To show this to the best advantage it is necessary to pose the subject at the proper angle to the lens, so as to show it somewhat in perspective, although not too much, as the petals are liable to be foreshortened. The size of the flower, if for an 8 x 10 plate, should be so selected as not to need either much reduction or enlargement, for then the texture values of the original can be obtained in addition to a more natural appearance.

As regards the color, much care should be exercised in the selection, so as to give the most attractive result, photographically. Dark red, deep indigo and highly variegated flowers are the colors to be avoided, as texture will be lacking, while white, lemon and the deeper yellows and pink can be made to give charming results with proper manipulation. The sunflower mentioned was a bright yellow, and with an ordinary plate and no color screen gave a decidedly false impression, it being dark and dismal instead of bright and sunny. The effect finally obtained was procured by using a Cramer Isochromatic plate and a light yellow-colored glass screen.

In lighting the subject one should not only seek a proper contrast of high lights and deep darks, but should attend and be sensitive to the infinite variety of middle tints, which are the ones that render texture best. By texture I mean the surface appearance. If the flower is waxy it should retain the appearance of wax in the finished photograph; if velvety, the feeling of velvet should be preserved, and if silky, the peculiar sheen of silk should be found in the finished print. This is where the true skill of the photographer comes in, if he desires to express in his pictures and transmit to others these exquisite distinctions that his artistic temperament make him sensitive to. To be able to get these results, we depend, next to lighting, upon what is called chemical effects, and good chemical effects are only obtained by the proper relationship of time and development.

I find that the use of one standard developer, and timing to suit the developer, is the most successful way of solving the problem. The average time necessary in flower work is thirty seconds, with f/32 as the usual aperture. My lens is a Dallmeyer rapid rectilinear, used in conjunction with a subdued side-light and Seed's 27 and Cramer Crown plates. My developer is a stock solution:

Metol	1 ounce
Sulphite soda	3 ounces
Carb. potassa	1 ounce
Water	40 ounces

Normal solution one ounce to two of water.

CHERRY BLOSSOMS.

As no two flowers require the same time this will have to be learned, as other knowledge is gained, by experiment. Full time and rather soft developer give the best effects for indoor flower studies, the contrast required being obtained by the lighting. Backgrounds enter prominently into the composition of all flower studies. In the case of the sunflower, coarse burlap was decided upon after some experiment, its mottled surface, by contrast, giving relief to the flower and enhancing its silky appearance. As this is a garden plant and usually found near a fence or an old wall, I allowed the grain of the burlap to show so as to suggest the proximity of something of that nature. The right

side of the background was shaded to relieve it of monotony, and also to give the idea that some near object was casting a shadow over it. In this picture no especial attempt was made to get atmospheric feeling, as there was too little distance to make it apparent.

The night-blooming cereus I found a somewhat difficult subject to handle, as it was over ten inches in diameter, and had to be reduced to fit the plate.

BRIDESMAIDS.

The color was a pale green, so that an Isochromatic plate was not needed. Its cup was fully four and a half inches deep, and to avoid getting the interior too dark, it had to be turned slightly to a soft, broad light, and a canary-colored reflector was found necessary to modify the intensity of the deeper shadows. The background used was a plain cardboard of a light olive tint. By a careful handling of the curtains a fine gradation from a delicate gray to a pure black was secured in the background, thus giving rich quality, setting off in bold relief this truly regal flower.

Of an entirely different type and character are the many little cherry blossoms in the next picture, therefore a distinct change in the handling was necessary. As the first aim in all flower studies should be to express character, texture and the sentiment of the subject in hand, one must be very sensitive to any suggestions that the flower itself may seem to impart in regard to

GERANIUMS.

POPPIES.

treatment. For example, illumination on these blossoms was sharp and narrow to the side, and slightly from the rear, without a reflector. This handling was entirely opposite to the large single cereus. Even the background was changed as to surface, tint and shading, it having a different mission to perform in this case, the suggestion of atmospheric environment; in the other, the appearance of plastic relief.

The characteristic charm of the cherry blossoms is the expression of dainty crispness, and to preserve this all legitimate resources were brought to bear by harmonizing the lighting, exposure and development.

Of all flowers I have found the rose to give the most unsatisfactory results, especially the highly cultivated ones, as they usually seem to be so painfully prim and proper that they lose most of the simple grace and delightful abandonment that the wild rose expresses. However, by careful selection

I obtained a fairly good spray of the "Bridesmaid." Whatever feeling of satisfaction there may be in this picture it does not depend upon the buds themselves, but upon their relationship to the retiring leaves, the mottled ground, and their position upon the stem.

So far I have not mentioned the use of the diaphragms to subdue certain obtrusive detail and to produce a vanishing or melting effect of some parts of the plant. Artistically, it is of the highest importance to know how to handle this important adjunct, for its assistance can be easily abused as well as effectively used. It is a well-known fact that a photograph that is rendered too sharp by using too small a stop has no pictorial value. In the case of the roses, had the leaves been as sharp as the buds there would have been no feeling of repose, and the critic would be disturbed, not knowing where the center of interest lay, whether in the sharp rose or in the still sharper leaves. Now, the eye rests immediately upon the main *motif*, all else being subordinate and in its proper place.

The principal features of the little geranium plant is its quaintness of outline and contrasts in tone values. It may be of interest to know that it was taken while growing in its earthen jar. I might state here, in passing, that there is a notion that flowers should be taken when on the growing plant. On the contrary, there are many that adapt themselves better for artistic effects two and even three days after being cut, as they then become more pliable and fall readily into pleasing curves. The lighting in this case was somewhat from above, rather contrasty, and no reflector was used, the petals being very white, as much shadow as possible being desired. It will also be noticed that the illuminated leaves are against the dark part of the ground, and the leaves in shadow against the lighter. This was so arranged for the purpose of emphasizing the leaves and bringing them into relief so as to keep up the interest, after having studied the play of light and shade on the more striking part of the picture, thus giving a feeling of satisfaction and a unity of effect.

Here we see that the leaves are made much of, and are quite sharp, an entirely different handling from the rose study where they are made to lose themselves in the background and are used as an unobtrusive accessory to fill up some vacant space.

The wild California poppy, although very difficult to handle, gives most gratifying results on account of its wild and unaffected gracefulness, the flowers having such a variety of positions upon the stems, together with the tender, drooping foliage. Most of the wild flowers suggest the idea of freedom and unrestraint. They must, therefore, be handled in a spirit of tolerance to their native characteristics. This can only be done by leaving them free and airy, not bunched up like cultivated ones, with stems all emanating from one common center in an elaborate vase, thus proving to us from the start that they are sorry captives.

As the wild flower in its native heath usually stands somewhat apart it is necessary, if we wish to preserve its nature, to handle the background with much delicacy, so as to environ the plants with the feeling that they are freely nodding and bending in a moving, surging atmosphere. To get this desirable result, no two square inches of background should be of the same tone value, yet each value performing its function in its proper place. This depends upon

lighting the ground independently of the flower, and not having it too dark or too light, too plain or too spotted, but a happy medium between the seemingly visible and invisible.

We may now naturally come to the conclusion that it is not the kind of lens, chemicals or background, any more than it is the painter's brushes, pigments or canvas that make the picture, but that these are the tools, guided by a spirit of deep love and humility, to desire to portray those creations of which the Master spoke, and said that "Solomon in all his glory was not arrayed as one of these."

[Mr. Lange will conclude his able article in the October number, devoting attention to the photography of lilies and describing printing methods and papers.—Ed.]

FROM A CARBON BY R. H. FURMAN.

PORTRAIT.

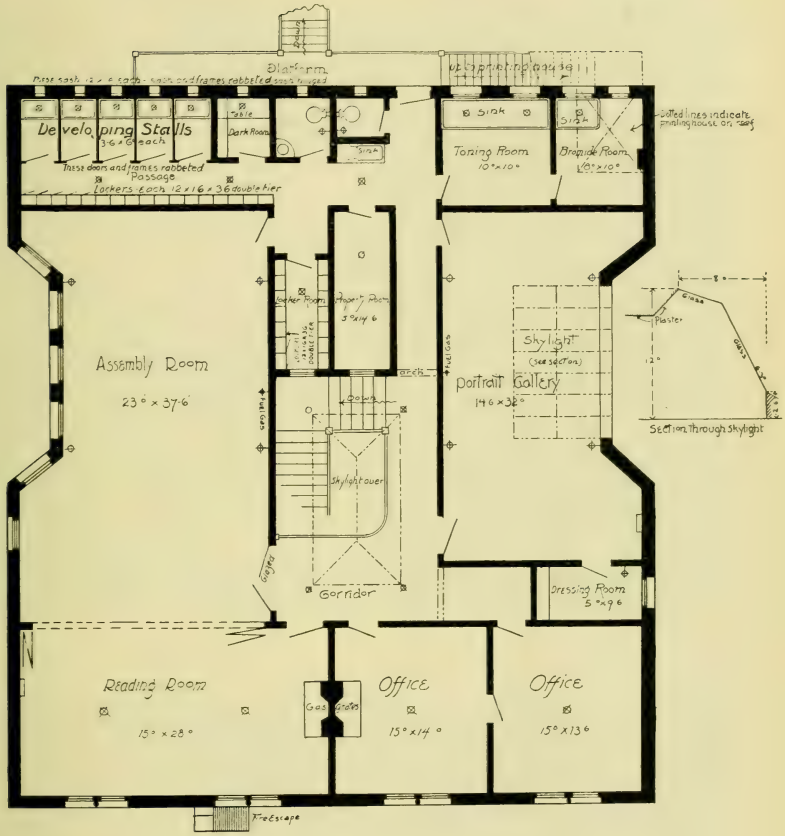
NEW HOME OF THE LOS ANGELES CLUB.

By Helen L. Davie.

An inspection of the accompanying drawing illustrating the floor plan of the Los Angeles Camera Club quarters, now nearing completion, will give but a faint idea of their convenience and desirability for the purposes intended. They must be seen to be fully appreciated. Unlike many camera club rooms, these have been planned on a liberal scale as regards floor space, the auditorium, reception room and gallery especially being commodious and admirably fitted for their several uses.

The entire upper floor of the Wright & Callendar three-story building, now in course of erection on Hill Street, between Third and Fourth, has been leased by the Camera Club for a term of years, in consideration of which the original plans were altered and this floor fitted up for the exclusive use of the club. The owner of the building, Mr. C. J. Fox, is an amateur photographer of some years' standing and is a member of the club. It is safe to say that no other photographic organization in the country can boast of so generous a landlord. Mr. Fox has left nothing undone to make the quarters convenient and complete in every detail, having, in fact, issued instructions to his architect to be guided wholly by the wishes of the club in drawing the plans.

Many of the club members being enthusiastic devotees of the wheel as well as camera, the main entrance on the first floor has been so arranged as to accommodate a large number of bicycles, and racks will be placed in the rear of the stairway and along the side for this purpose. Two easy flights of stairs lead to the club rooms, which are divided as shown in the cut. The auditorium, which is located on the south side of the building, is connected with the reading and reception room by sliding doors which, when open, convert the two apartments into one, thus affording ample room for all ordinary meetings of the club, notwithstanding its membership roll of nearly three hundred. The rear wall, having been finished in hard, white plaster, will serve as a screen of generous dimensions for showing stereopticon views, a place for the lantern and operator having been prepared at the other end of the room, between the ceiling and roof, the advantages of which arrangement are great. Across the hall is the portrait gallery, with roof and north light so situated in the center of the room as to admit of the operator placing his camera at one end of the gallery, out of the light, which shines full upon the subject only. This will be of great advantage in group work. Opening off the gallery is a convenient dressing room. The bromide room is situated at the rear of the portrait gallery and contains a large sink with running water, the window being so adjusted that all light may be excluded when desired. Adjoining this is the toning room. The five developing rooms are nicely fitted up with sinks and ruby lights, a ventilator in each room insuring comfort for the operator during warm weather, or should his work detain him for a long period. Outside, a row of lockers will be placed, which, in addition to those in the locker room proper, will make a total of about sixty-five. There is also a dark room, designed for changing plates, which will be a great convenience and render unnecessary long waits for a vacant developing room, when plateholders are to be filled in a hurry. A door opens from the corridor to a landing at the rear of the



FLOOR PLAN OF THE NEW QUARTERS.

building, from which stairs go up to the roof where a commodious printing room has been erected, the east and south sides of which can be lowered at will by means of rope and pulley, thus admitting the direct rays of the sun at all hours of the day.

Taken as a whole, these are undoubtedly the most convenient photographic club quarters on the Pacific Coast, and we doubt if any similar association in the United States can boast of a home more complete in every detail or better adapted to its requirements than that of the Los Angeles Camera Club.

The rooms will be ready for occupancy shortly after the first of September, soon after which the formal opening will take place. The date of the house-warming has not yet been decided upon, but preparations for that event, already under way, indicate the determination of the club to welcome its friends to the new home in royal fashion.

DAINTY BITS FROM HAWAII.

By C. B. Gregory.

Pictures by Professor H. W. Henshaw.

AN ISLAND NEPTUNE.

THE accompanying illustrations represent the work of a man whom I esteem as one of the few photographers born with a latent talent for procuring artistic effects from nature. He is Professor H. W. Henshaw of the Smithsonian Institute, now sojourning in the Hawaiian Islands for rest and health.

The pictures herewith presented are but a few of hundreds made by him during the past two years. Every one of them bespeaks the warmth and glow of the Sandwich Islands and the skillful touch of the artist is visible in them all. The one dominant trait in this photographer is caution. From his method the rough and ready amateurs of California could gain much profit. Hardly a week passes in California but what the same conditions portrayed by Professor Henshaw comes to pass. Then, why is it that we see so few pictures speaking and breathing the glories of California?

COCOANUT ISLAND.

SUNSET ON THE RIVER.

It is simply a lack of caution on the part of the average run of photographers.

While the average amateur will spend a dozen plates in one afternoon I have known Professor Henshaw to return from a ten-mile jaunt without an exposed plate. There is where caution enters into the composition of good photographs. The faculty of keeping the shutter closed until the right conditions are found is not possessed by every one, and is not encouraged by the usual advisor of the amateur, the supply dealer. There have been occasions when Professor Henshaw waited for days and weeks for the right conditions to occur before making his exposures, but when his negative was developed it needed no doctoring or dodging.

A peculiarly striking feature of this photographer's work is the absence of every objectionable feature from his picture. This peculiarity is due to the manner in which he moves his tripod from place to place until the end is satisfaction to both himself and future critics of the finished print. Here again caution enters in the art of picture making.

The wonderful clearness of the atmosphere in the Islands is at once the joy and despair of the average photographer. At times the multitude of detail that creeps into the picture renders it almost machine-like in its regularity of outline, while the suggestion of distance is absolutely lost. This objectionable feature is eliminated from many of Professor Henshaw's pictures by the selection of the late afternoon as his favorite time for exposure. I have one negative made by him which came near being consigned to the dust-pile, yet I

FISHING VILLAGE ON THE WAIAKEA RIVER.

HAINEKE.

value it more than any other, because of its soft, twilight effect. It is the view of the fishing village, with the boat in the foreground. The negative was a trifle under-exposed and out of focus, but these faults but add to the value of the picture, in my sight.

In conclusion, let us not be too hasty in making our exposures, and let us follow the doctrine set forth by him whose work furnishes the excuse for these lines:

"Take plenty of time, do not rush, and remember that one good picture is worth a thousand hurried exposures."

HOME-MADE NEGATIVE BOXES.

By J. R. Harcourt.

The matter of keeping a number of negatives so that they can be readily obtained when desired, and yet preserve them from possible injury, has always been a problem with the amateur. While there are a number of negative boxes on the market that give satisfaction their cost is considerable, and the increasing need for a new box will soon reduce the amateur's allowance for material more necessary in the pursuit of his favorite pastime. To those who have a weakness for home-made appliances the following suggestion might offer cause for experiment:

Procure a number of cigar boxes, the size originally holding 100 cigars being the only ones applicable, a lot of corrugated cardboard, glue and a few tacks. If the negatives are 4 x 5 the box should be 5¼ inches wide and 4½ inches deep. Cut the corrugated cardboard in strips to fit in the inside of the box with the corrugations running across the length of the strip. Paste the strips on the two insides of the box and you have a negative box that will hold about two dozen negatives. In pasting in the two strips it is best to use a good quality of glue, exercising care to see that all of the ends are securely fastened to the box. If the box is too wide, paste strips on the sides until they are built up to the desired width. These boxes have the advantage over the wooden ones in that the liability to scratch and chip is not so great. When completed the box should have attached to the lid a leather strap with a slit in it to fasten on a tack driven in the box proper.

THE USE OF THE DIAPHRAGM.

Do not use a smaller diaphragm for your lens than is absolutely necessary. It is a mistaken idea that the "sharper" the picture the better. The most artistic pictures are made by having the "sharpest" point closest the camera, and as the eye travels backward over the subject, the focus should recede also. Never have the outline of a portrait perfectly sharp. This will cause that flat appearance, as though the subject were pasted against the background. — *Photo Clipper.*

MAKING PICTURES BY PHOTOGRAPHY.

By Edwin W. Newcomb

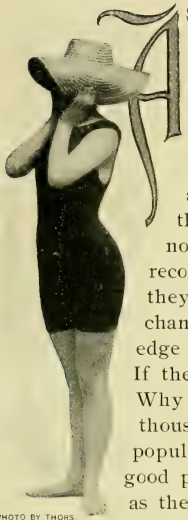


PHOTO BY THORS.

AS HAS been said by many, art has no rules, it is not reduced to arbitrary laws, and is therefore inexact, difficult to define, and almost impossible to acquire a knowledge of, and is inborn. With this justification for their conduct many photographers proceed on the hit-or-miss principle, never giving further thought to the matter of rules, thankful that they occasionally make a good picture, philosophically bearing their defeat when their guesswork goes wrong. It seems incredible that such notions could exist in the minds of a sensible people, for they recognize laws for everything else and they must know, were they only to stop and think, that what they do occasionally by chance another man does regularly by rule through his knowledge of laws governing the pleasing or non-pleasing impression. If there be no laws, why are not all pictures equally good? Why is one particular picture in an exhibition picked out of a thousand or ten thousand as the best by either a jury or by popular vote? Because it conforms to certain requirements of a good picture, and that conformity was recognized by the judges as the *reason* for its selection as better than any other. Many artists and photographers actually do not know which of their work *is* best. They submit a number of pictures to the final verdict of a thoroughly competent jury, and are not infrequently surprised to find that something they thought very little of is accepted and even hung prominently, whilst alas, their *chef d'œuvre* is returned rejected. Why the owner favors the rejected one is a matter of personality; there may be pleasant associations connected with it, or it may be a portrait of one so dear or so near to our personal idea that we unduly favor it.

The laws of composition may not be inexorable nor those of lighting be inflexible; they will, when understood, bear various interpretations, I think. The balance of a picture must be studied out and preconceived notions carried into effect in forming the picture into a pleasing theme; the law is *first* mapped out, and the expression, which is individual, is then a matter for each to work out for himself. A picture, however, depends on more than mere compliance with laws, and in that respect is very similar to good music. Have we not heard technically correct renditions of our favorite music which were nevertheless inferior to the one we have heard another perform? Therein lies the soul, the personality with which one man endows his work and the other does not. The first thing we have to do is to conceive a story-telling idea, the second is to see that it is plotted out in really good composition so that lines strengthen lines, masses do not struggle and distract the eye, and the subject is thoughtfully treated. A good subject for the picture that is to be I unhesitatingly place first in the requirements, for no matter how well we compose a picture, if it lacks interest, all the good composition in the world will not save

it from mediocrity. The nearer it comes to appealing directly to the hearts of a great number of people the better is that picture. Composition, technique and color may all be passed by unadmired if the subject itself does not appeal to us. And, on the contrary, if the picture does appeal to us through its title or subject how lenient we can be in the matter of execution, and even of composition.

Now, it may be argued by the photographer that the painter has the advantage of us people who are limited to monochrome, and that it is in the *color* that we so often fail to please while the painter succeeds. How can such an insignificant advantage as that be counted when to offset it the photographer has so many not possessed by our friend, the colorist. L-o-v-e spells love, write it in yellow, red, blue or green, or even all colors, and what does it gain over the black letter? The simple combination of those four twenty-sixths of the alphabet are just as adequately expressed in black and white, and so I argue, can a tender combination of things be equally expressive in black and white as in color.

I happen to recall a picture of Horendon's "*Leaving Home*," an humble scene in a country room depicting the departure of the son from the old farm, the tender solicitude of the old people, the plain, true rendering of an affecting moment. It was medaled, and hundreds of visitors picked it out of all the pictures shown that year as the best, yet it dealt with a most humble story. Now what I am most struck with, as I recall this picture, is that few took but little notice of the color, and would have applauded it to exactly the same extent in black and white. Photographic copies of it were a positive study, good for the beginner or the most cultured critic; they were never parted with by the fortunate possessors.

NEGATIVE BY L. E. REA.

STRANDED.

Now, had a photographer conceived the same idea, pictured the same people, the same room and surroundings, *his advantage* would have been that instead of long, wearisome days spent in catching an expression and all the drawing, he might have done it within one little hour. The lens, if good, would attend to the drawing, and the sun or magnesium would do the rest. The photographer has the same opportunities for the conception of pictures that the painter has. True, the painter has studied art, and has educated his eye to discern the beautiful, but why cannot the photographer? And now we arrive at a point worth discussing. We photographers today are, many of us, "twixt the devil and the deep sea" over the so-called *schools* — the new and the old — of photography. Briefly, the situation is thus as I see it. Making pictures by photography is a very young art. We started by demanding lenses which would render a scene or a subject microscopically sharp with hardly a care as to atmosphere, perspective or any other values. We deemed a thoroughly sharp picture — sharp in the foreground, background, and all four corners — a *photograph;* it was a semi-mechanically executed sort of a picture described by the name photograph, and as such it gave considerable satisfaction for a period of years. Artists laughed at the ridiculous things openly and, save in cases where the new art was used to copy paintings or show a man how the front of his house looked, valued it as worse than nothing — good enough perhaps for a soulless piece of lens work — otherwise a monstrosity.

This was indeed a fair enough valuation of photography at the time, but it was a mere babe, it must be remembered. As time went on interest increased in the new process until it was taken up by cultivated people as an amusement, and as the makers of apparatus saw the great future before it, they made wonderful improvements at the suggestion of those who understood its limitations. On and on went progress; upward and upward went standards until today, only twenty-five years since amateur photography became popular, a much different understanding of the use and value of improved apparatus and accessories prevails, and we are given tools with which we can intelligently follow many of the same rules the painter uses and make a nearer approach to correct rendering than we once did. Here we draw so close to the painter that we are sometimes led to try to imitate him in our own way with our tools. A school has been vainly advocated by a very small band of ultra faddists who, none too fortunately, have an organ in which to ventilate their disease, in which school some ideas which would hardly be credited to a paresis patient are sturdily advocated with a waste of plausible language worthy of a better cause. With the aid of the aforesaid organ and of a wishy-washy journal in which an individual, who shall be nameless, seems to have *carte blanche* on space for his wonderful effusions, the would-be John Browns of photography, the originators of the so-called "new school" are becoming, or more properly speaking *are*, the laughing stock of both Europe and their native country.

But, as I said, we are in a position to use many of the legitimate methods of the painter, and we have a right to do it, providing we do not overstep our bounds. Our lenses of today are distinctly capable of rendering true drawing, correct sense of distance and atmosphere; our plates can be depended upon to render colors in their true value — not in color, but in the correct shade of monochrome, which, in comparison with the other colors in the picture, is as the

eye would see it through smoked or blue glass. Formerly our blues were white, and our yellows or oranges were too dark. We have plates to correct this, and we understand the use of screens so that we can produce a blue sky with white clouds successfully. Our developing chemicals are better than ever.

We have studied local treatment, and truly we are *beginning* to obtain a grasp upon photography with which picture-making may be more successfully attacked than ever before. We have advanced quite as much as could be expected in a brief quarter century of casual dallying with the camera, and if that advance has brought us to a temporary standstill where we find it convenient to look the ground over and examine the real possibilities of photographic picture-making, well and good. If we realize that we have not been making much good work, better yet. It will take a hundred years to bring photography up to a really high picture-making accomplishment at this rate, but how many hundred years has it taken to bring painting to the point it so proudly occupies today, and how many thousand painters are there who have not caught up, as it were, yet, and will not in all probability? Truth to tell, it often occurs to me that the present slight turbulence in matters photographic is *about due* when we consider the most horrible photographs so many are turning out in immense quantities. It is time there *was* a moment of sober reflection and consideration of the real possibilities of the instruments so many of us have used as toys. Let us ask ourselves a few pointed questions. How many photographs do we take in a day, and how many days in a year? How many pictures does a successful painter find inspiration for in the same time? The painter is trained; many of us will acknowledge that we took up photography without any such training, and that the very most we can claim to know is the technique of the art of photographing.

Many admit that they are far from even being a master of that. What then, in all conscience, can they expect, and who can they blame but themselves if they do not make pictures? I use, and always have used, the word picture very lovingly. It means much to me, but I confess that when a man exposes twelve to twenty-four plates on as many different subjects a day and says he has been taking pictures, those are not, to put it mildly, what I mean. I suppose the sonorous blasts of the double bass horn are music, and I am fond of music, but I don't recognize the efforts of the operator on that useful instrument as music — scarcely. But bad as the best efforts of our friend with the horn may be, even though he is skilled, how distracting they would be if not in the least guided by musical knowledge.

How then of the man who tries to take pictures with but an imperfect knowledge of photography and a total ignorance of art principles? It seems ridiculous, yet is that not exactly what many of us are doing? Would the same indifference be displayed if plates cost five dollars each? We would expose about one one-hundredth of the number of them that we do, but really, is it likely that we would make better or worse pictures? Assuredly we would improve, for we would be apt to consider the cost of a failure and make better preparations for securing good worth for our expenditure, even were there no considerations of deeper import. When we take our camera out we are too apt to see things we call *pretty* for the want of a more exact term, and those

NEGATIVE BY HUGO GOLDSMITH.

THE NATURAL BRIDGE — SANTA CRUZ.

are the very scenes we secure without further ado. Do we study them and ascertain why they appeal to us at all? Do we make sure that the component parts mass well, compose and mean something, and have a right to be included? Do we pass it by if not properly lighted, or if from every possible point of view something objectionable is included? Do we note the spot and decide that with a certain animated foreground and on just such a sort of day at about such a time a further trial might warrant the exposure of a plate? I fear not.

Two dozen cartridges will amply suffice the hunter of large game a month at least if his aim be good and his game worthy of the lead, whilst several hundred would be short rations for the man who, failing to see large game, finds pleasure in shooting at an empty tomato can. I think that simile is applicable to our would-be picture makers. They would like to take real pictures if it were possible without too great exertion, but failing in that they *enjoy* exposing plates, and accordingly take that much pleasure at any rate. It is this playful use of the camera that accounts for so much work which is of not the slightest interest to anyone but the person making it. I often hear friends talking of a trip away with the camera, and if of from two weeks to a month's duration a gross of plates or films seems to be about the right quantity to carry along. Think of it. Even were it possible to construct one hundred and forty-four *pictures* in thirty days, what a physical and mental wreck that man would be on his return to business. Think of it in some other light — a gross of sermons written in thirty days, a gross of legal cases of importance all made clear in one month, a gross of inventions made, or any other such ridiculous task portioned to one man.

To conceive a meritorious picture is a really arduous task, calling upon one mind for its best efforts, and beautiful as nature is at all times, we cannot simply plant our camera before a favorable looking bit of it and secure an interesting picture. We have to study the situation, and if not wholly satisfactory try to think what it lacks, under what conditions it *would* be a picture. Of course, we occasionally stumble right upon a magnificent thing and are not

slow to possess ourselves of it, and it is owing to this occasional good fortune, no doubt, that photography has any fascination at all for some. They consider it much as they would the game of lottery, and by playing frequently enough draw some few prizes, though the investment usually proves far from sound from a financial standpoint. I know many men who do not seem to recognize a good picture until the plate is developed and a print struck off; they cannot depend upon their knowledge of photography to produce what they seem to see in nature, hence, though excellent judges of the good points of a picture, their work is quite of the experimental order. Their artistic sense is keen enough, but their photographic technique is at fault. It is well enough in such an instance to take many plates and expose extensively, for such work can by no means be considered aimless; far from it, it is most beneficial to the student, and is just the kind of study which will not only aid the man himself but photography generally. It is only the careless, aimless, pleasure-seeking, rapid-fire photographer who is doing our art harm, but there are a great many of him, and it is small wonder that the average has lowered, as it undoubtedly has in the last ten years. The *average* merit has decreased in the period mentioned, but that is on the same principle that white sheep eat more than black ones — there are more of them.

If we could only induce the larger portion of photographers to look at the matter from a different standpoint, pictures would not be so scarce. We have a very limited number of producers of real photographic pictures in our country, a very limited number of people who can be counted upon for a small quantity of really beautiful pictures each year. Considering the great army of camera users, the precious few who do good work is most absurd. This state of affairs is deplorable, indeed. Yet what are we doing to better it? Now, the time is appropriate for some decision. Many of us have spent a summer in vacation haunts, have experienced another fruitless trip away, and mayhap are counting up the cost of our fun with the camera. Had we taken four good pictures the cost would have been trivial, the satisfaction very great and the experience invaluable.

NEGATIVE BY P. E. ARMSTRONG.

THE CAMP.

I suppose the average man considers it an honor, a gratification and a reward if he can send his photographs to the great exhibition and have them awarded a good position; many, many of those who send photographs do not secure that satisfaction, and when one does accomplish it it is because the honor is well earned. Our foremost photographers cannot make enough good pictures to enter in all the important exhibitions per year and show a different one in each. How, then, can the rest expect to. I do not see how we can ever keep up the pace so far as exposing is concerned and rank with our British competitors. One good picture is a splendid week's work, I consider, but it may be that my methods are all at fault. Any way, I would be glad if I could make one every week for the next few months. If I am on a tour and see something that could be made the basis of a picture it is more than likely that my time will not permit of staying until an auspicious day arrives or I can bring models there. It is very rarely the case that I find, save in street scenes, my picture all on the grounds. I often see a delightful glade and fancy the picture that could be made in it, a path through the woods which would make the setting for a scene, a field or meadow full of interest as a part of my proposed picture, but I do not find the whole of a story-telling picture once in a thousand times.

I wish those who go abroad with cameras hunting for scenes worth photographing would try to recall how many ready-made works of art they ever found waiting for them, and then act upon the inevitable conclusion to be deduced. An enthusiastic amateur was walking by the side of a lake with me a few years since when he suddenly stopped and exclaimed, "By George, there's a picture!" I looked where he was looking and was surprised, for I saw none. "Where is it," I said? "Wait till September," said he, "and I'll bring a white boat up here on a lowering day, make use of that sandy beach, those trees, the path, a pretty girl and the distant bogs, and you'll see a pretty thing." He was as good as his word, and should he care to exhibit the picture he secured there is no doubt but it would score a triumph. He saw the material there, decided at once that the view was well nigh perfect — or would be when the leaves were falling, the path strewn with them, the view more extended and other conditions to his liking.

It is this ability to see *part* of a finished composition in a view that aids the knowing men to bring the rest there or wait for better conditions. Another man I know wanted cattle in the foreground of a picture, and he not only borrowed a herd, but kept a farm hand busy driving them about nearly all day until he was fairly tired out so that he could get each cow exactly where she would serve to a purpose. Only one grouping would mass effectively, and to get that grouping he was patient enough to wait all day. Why, the average amateur would no more go through that experience than he would quench his thirst with hypo solution — too hard. Yet harder work has often to be done than that to make a picture. Ask any well-known successful picture maker if the instances cited are exceptional. Cows cannot be expected to properly group themselves, and, in fact, they do not, as thousands of snap shots taken without troubling to arrange them will attest. Later, when submitted to a well-versed critic, he will tell the maker of the picture that it does not compose, this cow should not be here at all, the massing is bad, the arrangement

is unpleasant, and as for that cow there she would spoil the picture even were everything else favorable. And the photographer wonders and says nasty things about the critic. "The cows were there, I could do no better; what does that fellow think I should do, paint them in, plant stuffed cows about according to some rule or miss it entirely? The cows are good and they *must* be natural, for that's the way I found them."

Bad logic, my friend, very bad, and in your own heart you know it is only a lazy man's excuse for either not trying or else an ignorant man's apology for not knowing better. Why not learn better? Why not study up, and before going out to take a picture find out what a picture is, or if we know, why not resolve to try to bring one back with us? Let guesswork alone. Some of us are prone to touch our finger on a fence when a conspicuous sign tells us it is wet paint just to see if it really is, and likewise we touch the button of our camera altogether too many times when our eye and sense tells us that the scene is not worth a plate.

A study of pictures worth the name will show us that they tell a story, that they are pleasing to the eye, interesting and worthy of close attention. If we should purchase a painting we would make quite sure that, as it was to hang in our rooms for years, it would bear frequent looking at, please us just as well another day as today, and such a quality must be in our photographic work before it will attract the critic's eye at home or in exhibitions.

SHASTA AT NIGHT.

NEGATIVE BY WM. GOEGGEL.

The accompanying illustration is from a photograph, the equal of which has seldom been made. It depicts the brow of Shasta covered with snow and was taken at midnight, last winter, at a distance of six miles. Several experiments were necessary before the correct exposure was ascertained, the first trials resulting in a pure black print with a vivid spot of white where Shasta loomed up in the night. Succeeding efforts, however, procured the desired effect, which is both novel and picturesque.

PHOTOGRAPHING FOREST FIRES.

BY R. P. EARLE.
WITH PHOTOGRAPHS BY THE WRITER.

It was Sunday afternoon, July 22d, while peacefully sleeping off the effects of the previous day's journey into the mountains, that I was aroused from my slumbers by that ever-startling cry, Fire! Fire!—the clanging of the church bell, pattering of hoofs, and the scurrying of people to and fro. Half dazed at being awakened so suddenly, I jumped from the bed and rushed to the window, looking first in one direction and then in another. Presently my eye caught sight of a huge mass of black smoke curling hundreds of feet into the air, at the rear of the house.

THE START.

It did not take long to realize what was happening. The crackling of the dry brush and the roaring of the fire could be plainly heard as it swept up the mountain side, at railroad speed, carrying to destruction everything before it.

About noon the fire was discovered, at first in the Big Santa Anita Canyon, near the engine used by "Lucky" Baldwin for pumping water to the famous Santa Anita Ranch, but was soon extinguished, so it was thought, by people who were near by. A strong wind was blowing at the time, which fanned the sparks that had been carelessly left, and by the time Rangers in charge of the United States Forest Reserve had reached the scene, the fire had gained such headway that it was impossible to check it.

The Big Santa Anita Canyon is a most picturesque spot. Its walls extend hundreds of feet on either side, and are covered with scrub-oak, manzanita, sycamore and small pines. Its chief value is the water supply, for which purpose the Government has set aside five hundred thousand acres as a Forest Reserve. Many picnic parties find this a very pleasant spot for a day's outing, sitting beneath the trees and listening to the songs of the babbling brook at their feet.

Entirely oblivious of their terrible danger, a party of people from Los Angeles had driven out in a tally-ho and were enjoying themselves, not knowing or thinking of the progress of the fire, which was sweeping toward them and would, in a few moments, claim more victims in its awful destruction. Presently, the smell of smoke and the intense heat brought them to their

senses, and had it not been for the presence of mind of the driver, they would have perished. Hitching one team to the tally-ho, and the other behind, he determined to make a dash for liberty. Some members of the party were left to fight their own battles, while the women were crowded into the tally-ho. It was only by wetting their clothing that they were enabled to pass through the intense heat to safety. As it was, several women fainted, the horses were singed and the paint blistered off the tally-ho.

All that night the fire-fighters worked, the Rangers calling for volunteers, in fact, for everyone who was willing to encounter the dangerous situations incident to fighting fire in the mountains. Packing my camera on a burro, and accompanied by two companions, I started for the scene. We took what is known as the Sturtevant trail, which leads into the depths of a most beautiful timbered country, in the midst of which is situated Camp Sturtevant, one of the most attractive mountain resorts in Southern California, and where, at the time, were located over a hundred campers, whose lives were also in danger, as they were directly in the path of the fire. Gradually ascending the outer face of the mountain, which had escaped the fire fiend, we soon began to feel the heat. Small cinders began to fall over our trail, which was extremely narrow in many places; but little did we think of this as we were bent on seeing, and, if possible, obtaining a picture of the West Fork of the Big Santa Anita Canyon, where the fire was then confined.

TWO HOURS LATER.

Reaching a spot which we thought a safe distance from the fire, we decided to leave our burros and walk the remainder of the way, as branches of trees, stones and dirt loosened by falling trees far above us began to have rather a disastrous effect upon the good nature of our burros. Sure-footed as they are, the trail was strange, and this, together with the heat and smoke, made it slow and tiresome work urging them along. Making them fast, I shouldered my camera and we pushed our way forward to a spot where we thought the best view could be obtained. In a few moments a scene met my gaze that I will never forget. Far beneath, and high above, in fact, on all four sides huge masses of flames and smoke could be seen. Down as far as we could see a little spark would appear — in less time than it takes to tell, huge sheets of flame would shoot hundreds of feet up the mountain side, traveling at a tremendous speed. Then black clouds of smoke would rise, completely hiding from view the

dense growth of manzanita, buckshorn and chaparral which furnished good food for the flames. So engrossed were we in the spectacle about us that we had entirely forgotten our own danger until the crackling of burning brush behind us told that it was time to "come back to earth." Turning around, we found ourselves almost in the midst of the fire. It had crept upon us from behind and had almost entirely cut off all escape save for a small spot cleared for the trail, as we supposed, on which we were then standing. We did not hesitate, but made our way through to the opening as fast as possible, only to run into a number of Rangers shoveling dirt and chopping away brush directly at the spot through which we were making.

Getting safely through, we did not stop for explanations but ran down the trail to the burros. We did not stop to mount, but dragged the poor beasts down the mountain side at a rate that fairly made their hair stand on end. Neither did we stop to look back until we thought ourselves a safe distance from danger. When at last we stopped for breath and to look back over the ground we had just passed, we found that the identical spot which we had left, as well as where our burros had been tied, was entirely enveloped in one mass of seething flame.

THE DAY AFTER.

When I finally began to look about me, and think sensibly, I looked at the camera in my hand. Poor thing! the intense heat had been too much for it. It was badly warped, and much for it. ing it, the inside, as well as the outside, rattled like peas in a pod. I did not have the slightest hope of getting a print from the exposures, as I supposed that the film had been ruined by the heat. However, I was agreeably surprised when I opened the camera to find the the spool intact, and still more surprised when I found several good pictures after development. The three pictures accompanying this article give but a faint idea of the fury of the flames.

Something over one hundred miles was burned before the fire was subdued. Up to the present no estimate has been given as to what the damage to the country's water supply will be, and it is hard to say what it will cost the Government. Thousands of dollars will have to be paid to the men who worked day and night until completely exhausted from the smoke and heat and want of sleep, while the timber loss will mount into the hundreds of thousands.

NEGATIVE BY COOVER & RASMUSSEN

STUDIES.

ILLUSTRATED BY THE WRITER.

The life of the newspaper photographer, like the life of the average newspaper man, consists principally of "getting a move on." His position is like the picture he is supposed to take — full of action. If he fails — well, he must not fail. He must bring something back from an expedition, even if it be but the mere outline of the subject. To fail entirely is ignominy. Necessarily there are limitations to photography along the usual lines. Even more stringent are the limitations of newspaper photography. The subjects demanded by newspaper readers of today incline strongly to the portrayal of events that happened within the period of going to press on one day to going to press on the next. Therefore the necessity of action.

How many of you have exposed a plate, developed it and submitted a print in an hour? The few who have will appreciate the experiences of the newspaper photographer's life, which is full of such episodes. Again, the subjects called for in newspaper illustration are exceedingly hard ones. Sporting pictures showing action are the ones most desired, and page after page is devoted to the display of the illustrations. To obtain the results required the focal plane shutter is an absolute necessity. Other shutters are good in theory but defective in practice. To be able to catch the finish of an exciting race, the exposure must be at least five hundred per cent less than the maximum speed of an ordinary shutter. With the increase in speed must come an absolute uniformity of illumination all over the plate. With these facts presented, those who have studied the theory of the roller-blind shutter will agree that only by its use can the desired effects be obtained.

THE HURDLE RACER.

For the benefit of those who know nothing of the workings of the focal plane shutter, the following brief description of its working may not be amiss: The shutter is constructed upon the roller-blind principle, flexible cloth being attached to a spring roller and wound up before each exposure. The exposure is obtained through a narrow slit extending across the entire width of the cloth. A spring indicator regulates the speed of the shutter, in conjunction with the regulation of the slit in the roller, which is adjustable. The two methods combined give a range of speed from 1-20th to 1-1000th of a second. The adjustable slit is regulated by two tiny chains, which fit into the struts which guide the blind. These can be readily manipulated, and each additional link pulled out widens the slit and decreases the speed. The speed of the shutter is found by dividing the denominator of the speed shown on the indicator by the number of links in use. For example: Two links being open and the speed shown on the indicator being 1-600th, divide the 1-600th by the

A LOW DIP.

number of links, which will give 1-300th as the speed of the shutter. The shutter fits on the back of the camera and the blind works immediately in front of the plate. For focusing, a release spring allows the shutter blind to be rolled up altogether, thus allowing the image to fall upon the ground glass which is attached to the shutter.

The theory of exposure with the focal plane shutter is to give the maximum exposure according to the needs of each class of subjects. The following table will give the approximate speed necessary to catch the several classes of subjects most frequently met with:

Man walking	1-150	second
Tennis player	1-200 to 1-400	"
Vaulter	1-400	"
Jumper	1-400	"
Horse walking	1-200	"
Horse running (direct)	1-500	"
Horse running (right angles)	1-1000	"
Man running (direct)	1-400	"
Man running (right angles)	1-1000	"
Football players and kindred sports	1-800	"

The actinic power of the light in various quarters of the country will alter somewhat the figures given, but for all practical purposes they will prove to be of value.

The fastest plates are of course a necessity, and upon the development much depends. As a general rule the figures contained in the table, used in

connection with a moderately fast lens, will be found to give a comparatively normal exposure; therefore a normal developer, somewhat energetic in action, is required. The following modification of one of the old pyro formulas will be found to give good density with plenty of detail:

No. 1.

Pyrogallic acid	1 ounce
Sulphuric acid	1 dram
Water	80 ounces

No. 2.

Sulphite soda	6 ounces
Sal soda	6 ounces
Water	80 ounces

Mix in equal proportions.

While it is not necessary to mix such a large quantity of developer, still it is advisable where much work is done, as it is preferable to use a freshly mixed solution on each plate.

One essential adjunct to focal plane work is a good finder, and good finders are scarce. The plain reducing glasses fitted in a metal frame are valuable for centering the subject upon the plate, but are of little use in determining when the plate is completely covered. However, as it is seldom desirable to make a fast picture occupying more than three inches on the plate, this does not matter so much.

EASY

NEGATIVE BY EDWIN R. JACKSON.

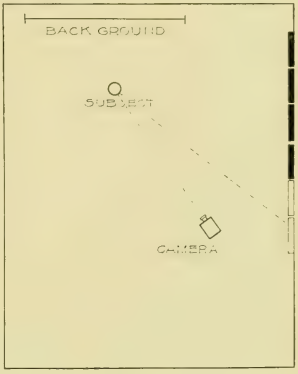
"AS WE GO MERRILY HOME FROM SCHOOL."

THE NEW PORTRAIT.

By Will Lussier.

To be in style is the chief aim and object of all who depend for their subsistence upon the caprices and foibles of that ultra-fashionable element known as society.

Our most successful photographers, who have, through the individuality of their work and the circumstances of location and patronage, won fame and riches, are the men who lead in the new styles photographic, and adapt their methods to the never-ending fads and fancies of the society folk.



METHOD OF LIGHTING.

No one watches the ever-changing conditions of his chosen profession more closely than the progressive professional photographer; but as he cannot always go to Paris or study the fads of the day in London and New York, a few lines to indicate the new styles may be in season :

The prevailng style during the past several years has been well inclined toward the dark background, with well-defined shadows in the face and draperies. For a time the Rembrandt effects threatened to involve the professional photographers with the amateurs, who claimed this step in portraiture as exclusively their own. But a reversal of

NEGATIVE BY R. H. FURMAN.

A MESSAGE FROM THE WARS.

opinion in the ranks of the critics caused this departure to be relegated to the rear and the prominent Eastern workers returned to the dark backgrounds and the usual side-light portraiture.

However, during the past several months, the style inaugurated by Hollinger of New York and subsequently followed by Brenner, has caused the fraternity to look to their laurels, and it seems at present that the new century will find light backgrounds and soft lighting, otherwise painters' lighting, characteristics of the fashionable portrait. The great advance made by platinum paper during the past several months accounts in part for the readiness with which the new lighting has been accepted because of the peculiarly dainty appearance of the finished picture. Vignetted, the pictures have that quaint old-fashioned appearance so striking in the miniatures of the past. Only the black and white papers can be used in producing the desired effects, but as these papers are now the most popular with the trade this will not prevent the general acceptation of the new style.

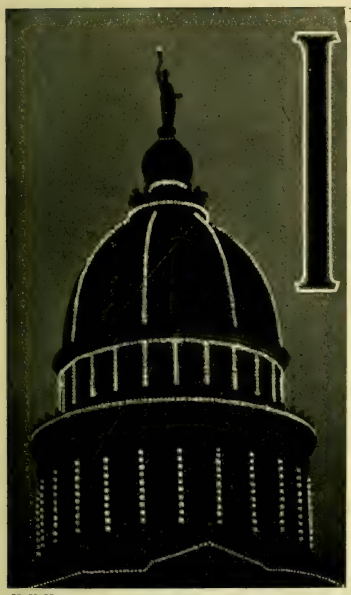
In making the pictures the shades are drawn in the same manner as in obtaining the "painter's lighting." The dark background is replaced by one of pure white with absolutely no modulation. A reference to the accompanying diagram indicates the position of the subject and the angle at which the light should fall upon the face.

By subduing the light and allowing it to come from but one point the detail in the shadows and in the high lights is increased. No reflectors are necessary in this lighting, as the full illumination in the face renders their use unnecessary.

In developing the plate the agent used must be of uniform strength, so as not to cause halation in the whites; for if any halation be present in the high-lights the inky effect of the shadows, upon which so much depends, will be lost.

NEGATIVE BY W. J. PIATT. "WHEN THE DAY'S WORK IS DONE."

THE COMING CELEBRATION.



WETHERBEE. IN HONOR N. S. G. W.

IN THE coming celebration of the fiftieth anniversary of California's admission to the Union lies the opportunity of the photographers to perpetuate the historical occasion for the benefit of generations yet to come. The numerous processions, illuminations and fireworks displays, together with the crowds thronging the streets, will furnish ample opportunities for distinctive work. It will give an impetus to street photography, that most delightful of all hand-camera work, and should result in a multitude of pictures peculiarly characteristic of the West.

In making pictures during the progress of the celebration the little street scenes should not be forgotten. Not a moment in the day will pass but what the foundation of an effective picture will occur, and the artistic eye of the photographer who wishes to portray the life of California during fete-time will find much to feast upon. The picturesque and varied costumes of the Native Sons and flowing white dresses and smiling faces of the Native Daughters offer other opportunities that will not be neglected.

The experience of San Francisco photographers during previous night illuminations will serve them well during the coming celebration, and much effort will be expended in depicting the appearance of the city under the glare of myriads of lights.

ANOTHER EDITION OF "THE COBBLER."

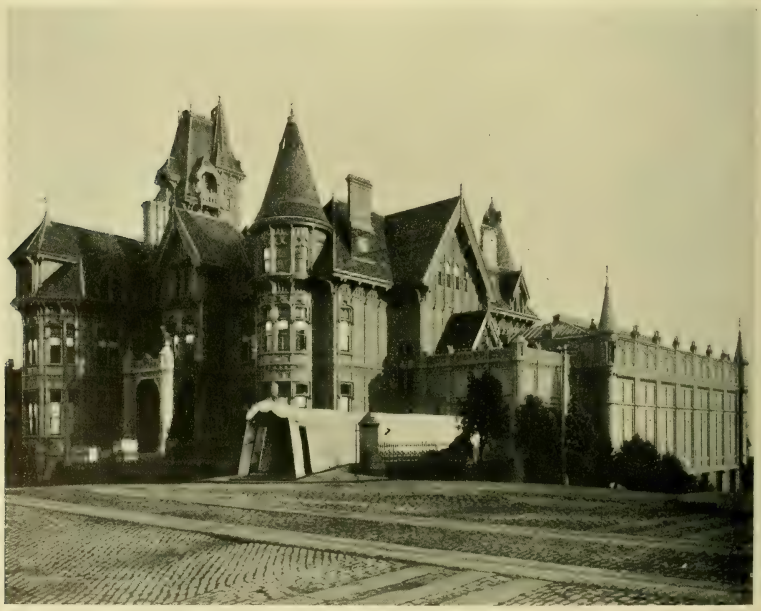
The undiminished demand for copies of Chas. Wiedner's "The Cobbler," printed in the May CAMERA CRAFT, has made it necessary to print a third edition of the striking picture. These pictures are now ready and can be had by sending five cents to CAMERA CRAFT to pay for the cost of packing. The pictures are printed in double tint on heavy plate paper suitable for framing and have attracted attention wherever shown. "The Cobbler" is undoubtedly one of the best Chinese character studies ever made. The central figure is an old Chinaman hard at work on a pair of boots amid characteristic surroundings. The expression on the old man's face is such as is seldom caught with the camera and is intensely suggestive of the yellow kingdom.

PACIFIC COAST SALON A FACT.

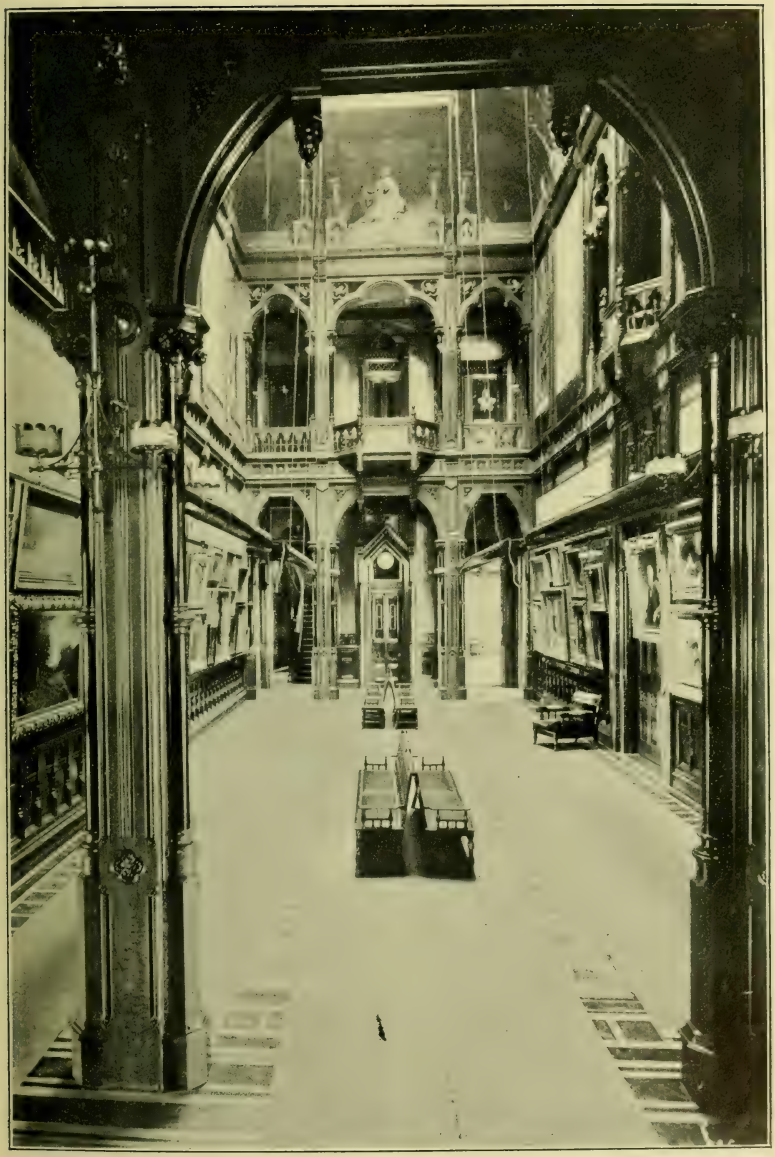
BOARD OF DIRECTORS OF THE MARK HOPKINS INSTITUTE OF ART DECIDE TO CO-OPERATE WITH THE CALIFORNIA CAMERA CLUB TO THAT END.

San Francisco is to have a photographic salon. At a meeting held on August 27th the Board of Directors of the Hopkins Institute of Art passed a resolution authorizing Captain Robert H. Fletcher, Curator of the Institute, to proceed with the preliminary work and granting the use of the Institute for the exhibition. This action was taken pursuant to a communication from the California Camera Club, asking the feeling of the management of the Institute toward a photographic salon, modeled upon the lines of the recent salons held in Chicago and Philadelphia under the auspices of art institutions.

At an informal meeting held on August 18th, at which Captain Fletcher on the part of the Institute, W. B. Webster and Oscar Maurer on the part of the California Camera Club and the CAMERA CRAFT staff were present, the proposed salon was discussed in detail. Although the meeting was not official and only in the nature of an informal discussion upon the possibilities of the exhibition, the plans laid before the meeting were so broad and indicated such an interest on the part of the management of the Institute, that the salon took definite shape and became from that date an assured fact.



THE MARK HOPKINS INSTITUTE OF ART.



NEGATIVE BY O. V. LANGE.

THE HOUSE GALLERY OR MAIN HALL.

In presenting the position held by the Hopkins Institute, Captain Fletcher commented upon the growing importance of photography in the realms of art and said that the management stood ready to lend its hearty co-operation in any movement looking to the furtherance of photographic interests in the West. The scope of the exhibition was discussed at length and it was tacitly agreed to follow in many respects the methods of the Eastern salons, although on somewhat broader lines.

It was then agreed to let the matter rest until the management of the Institute had officially acted upon the request of the California Camera Club, the feeling being that further details should be left to the committees appointed from the Club and the Institute.

At the meeting of the Directors of the Institute the opinion was unanimously expressed that the proposed salon would be the success of the year. The Directors were in full accord with the expressions of Captain Fletcher and left to him the details incident to the preliminary work.

Upon the adjournment of the meeting Captain Fletcher addressed a communication to the California Camera Club, informing them of the action taken by the management of the Institute and indicating his willingness to confer with the committees appointed by the Club at the earliest possible date.

NEGATIVE BY R. I. AITKEN.

THE MYSTERY OF DEATH.

NEGATIVE BY A. LE JEUNE.

A BOHEMIAN STUDY.

BITS OF ART IN THE MARK HOPKINS INSTITUTE.

Vice-President Webster of the club has called a meeting of the Board of Directors to convene on September 3d, at which definite action will be taken and committees appointed to take charge of the details of the preliminary work.

Although the date has not yet been determined upon definitely the salon will in all probability be held in January and will last two weeks.

The exhibition will be held in the new wing known as the *Mary Frances Searles Art Gallery,* completed in March of this year. This annex forms one of the best exhibition rooms in the city and is admirably adapted for the display of photographic work. It extends along the west side of the main building and is lighted by a double skylight, twenty feet wide by eighty feet long. The interior of the gallery is forty-three feet wide and one hundred and five feet long, the walls having a height of twenty-two feet, of which fifteen is picture space.

At night the walls are lighted by a series of powerful reflectors contrived especially for the purpose, which makes it possible to exhibit the photographs at night with fully as much effect as during the day.

No more fitting surroundings for artistic display of art work exist in the United States than is found beneath the walls of the Hopkins Institute. Originally a private residence, built by the late Mark Hopkins, one of California's pioneers, it passed into the possession of Mr. Edward F. Searles of Methuen, Mass., who gave it to the city and state for the use of the Art Association, under the title of the Mark Hopkins Institute of Art. The transfer was made to the Regents of the State University, and the institution therefore became affiliated with the University of California. The Institute is situated upon the summit of a high hill commanding a view of the entire city and the country for miles around. The architecture of the building is modern English Gothic in style, its pointed arches and spires and turrets giving it a peculiarly romantic effect in keeping with its lofty position.

The main hall or reception room, which is now titled the House Gallery, contains a portion of the Association's collection of pictures, and is one of the most interesting features of a building filled with wonderful architectural detail. It is a lofty apartment lighted with a double skylight in the roof. The walls are of oak, carved and inlaid with ebony, yamana and other woods. On the second floor a corridor surrounds this hall connecting with the second-floor apartments, of which there are many. This gallery is walled in by a screen containing eight large paintings illustrative of various ages and schools of architecture. Each one of the forty-three rooms in the immense edifice is treated in a thoroughly characteristic manner. Artistically carved buffets, wainscotting, ceiling beams and panels catch and hold the eye, while the careful and elaborate richness of the hallways will furnish food for hours and hours of study. One spacious apartment is a reproduction of the state chamber of the Duke of Milan, the carvings in the bow window of pear wood being exceptionally intricate and graceful.

As a whole the interior of the house, even to the minutest detail, is such as to excite the admiration of the professional architects as well as the casual visitor. With such a setting the coming exhibition cannot but be an imposing one, and the photographers of the West are indeed fortunate in securing the co-operation of such an institution.

NEGATIVE BY E. S. CURTIS.

THE CLAM DIGGER.

FIRST PRIZE PICTURE—GENRE CLASS.

GRAND PRIZE PORTRAIT.

BEING ONE OF THE GROUP WINNING THE GRAND PORTRAIT PRIZE AT THE CONVENTION OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA, AT MILWAUKEE, JULY, 1900. BY MOORE & STEVENSON, ATLANTA, GEORGIA.

CONVENTION AFTERMATH.

WITH REPRODUCTIONS OF LEADING PICTURES.

Looking over the report of the Twentieth Annual Convention of the Photographers' Association of America, the reader is forcibly struck by the unity of the speakers. The keynote of the whole convention was how to make professional photography a fine art, and to awaken in its followers the need for art study and effort. In fact, with the exception of the drafting of resolutions relative to photographic copyright, little else was considered.

Starting with the address of President Stein, who drew attention to the fact that the followers of art photography are traveling over the same ground that the painters have already traversed from the excessive detail of the pre-Raphaelites, who painted Nature as she is, "and not as she looks to be," so that an eye must be painted in a bird that was itself but a speck in the landscape of which it was a part, to the extremes of the impressionist school, in which detail and lines were lost beyond recognition, and lastly to a sane middle ground in which the greatest modern painters are working. So photographers have passed from F/64 to fuzzywuzzyism, and thence to a better, truer, and more balanced position.

The line of thought suggested by the President's address received enforcement from the art lecturers, who practically monopolized the convention. Professor W. Beck in two lectures gave criticism, instruction and pointers of exceeding value to all who do serious photographic work. Of his two lectures the one on lighting was particularly valuable and suggestive.

NEGATIVE BY E. S. CURTIS.

EVENING ON THE SOUND.
FIRST PRIZE PICTURE—GENRE CLASS.

NEGATIVE BY E. S. CURTIS.

MUSSEL GATHERING.
FIRST PRIZE PICTURE — GENRE CLASS.

One of the most eloquent fighters for a higher conception of photographic art was Professor A. H. Griffiths of Detroit, whose addresses are excellent reading. Professor E. C. Eldridge lectured on the art works in the Leyton Gallery, and Mr. W. I. Scanlan gave a resume of the photographic progress of the past year. Mr. Ives gave a lecture and demonstration on his kromscope. As a whole, the convention was indicative of how profoundly the art movement is affecting American photography.

Although the Pacific Coast was barely represented at the convention several prizes landed west of the Rockies. E. S. Curtis of Seattle, whose work is familiar to readers of CAMERA CRAFT, won the first prize in the Genre Class. The three winning pictures are reproduced in this issue. Mr. Curtis also won the fourth prize in Class A, twelve pictures, thirteen inches or larger.

A. L. Jackson of Tacoma received the third prize in Class C, twelve pictures, six inches or smaller in one frame.

H. R. Fitch of San Diego won the second prize in the Marine Class, consisting of nine pictures of any size. H. H. Morrison of Seattle won the third prize in this class.

Moore & Stevenson, the winners of the Grand Portrait prize are Southerners. The South is largely represented in the list of winners, and the East this year seems to have taken a back seat in the distribution of favors. The two pictures from the winning group in the Grand Portrait Class are the best examples of modern portrait work exhibited at the convention, and as such, will be viewed with interest by the craft.

NEGATIVE BY MARCEAU, LOS ANGELES

OUR MONTHLY PORTRAIT.
STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

A PHOTOGRAPHIC JOURNAL
ISSUED MONTHLY BY

THE CAMERA CRAFT PUBLISHING COMPANY

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W. G. WOODS, Editor.
CARL E. ACKERMAN, Managing Editor. F. I. MONSEN, Associate Editor.
L. D. HICKS, Business Manager.

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VOL. I. SAN FRANCISCO, CALIFORNIA, SEPTEMBER, 1900 NO. 5

WORDS OF PROPHECY

"The news will be heralded with joy when *Camera Craft* can announce to the photographers of the Coast that a salon of photographic productions will soon be held at the Hopkins Institute of Art."—[Extract from "*A Plea for Recognition*" in the June *Camera Craft*.]

When the lines printed above appeared, our readers little thought that they were filled with prophecy; yet today CAMERA CRAFT announces the holding of the first photographic salon in the West at the next Hopkins Institute of Art in January, 1901.

What this simple announcement means to Western photographers cannot be realized. With it comes the recognition of the craft as members of a distinctive branch of art. The portals of the highest art institution west of the Mississippi are thrown open for the first time, and photography makes one more step forward. Not even in the East has such full recognition been granted; and, strange as it may seem, the departure comes from the far West—from our own city.

Let us now "strike while the iron is hot." Let us interest our friends and our friends' friends, so that the feeling awakened may be fed and whetted until the coming exhibition is made to attract attention far and near. Let every worker work the harder that he may present something worthy of acceptance. Let there be no laggards and no small bickerings. The enterprise is too large to permit of internal strife. Intelligent co-operation and a single aim will result in the accomplishment of far-reaching results. With the success of the first salon the way is open to an annual repetition. With the standard set by the salon, Western photography will gain new inspiration and take on new life. Let us therefore improve every opportunity afforded to assist in the success of this, our first art exhibition, and to attract attention to its possibilities.

A KINDLY EXPRESSION

The uniform courtesy extended to CAMERA CRAFT by the photographic publications of the world gives the publishers cause for congratulation. More especially do we appreciate the words of the foreign journals who have so kindly welcomed us in the field and extended to us the hand of fellowship. The following extract from the *Australian Photographic Journal*, the standard photographic publication of Australia, is but one of the many hearty greetings we have received. Says the *Journal:*

"CAMERA CRAFT, a photographic monthly — Perusing the initial number of this new American publication we are greatly impressed by its quality throughout. Art predominates in its entirety. It is well edited, nicely printed, contains several illustrations descriptive of technical skill combined with pictorial art, which might, too, be held up as examples of what can be done by reproduction processes, and what results can be obtained by good printing from half-tone blocks — with apology for adding — the same would serve as an object lesson to printers in these parts!

"'The Cobbler,' by Charles Wiedner, forming a frontispiece, is a splendid specimen of applied art and technical skill. 'As the Sun Sank Low' is another study of an educative character. Some eighteen or twenty pages are devoted to articles of photographic interest and enlightenment from which we quote 'Photometry in Medical Science,' with illustrations by the author, H. D'Arcy Power, M. D." * * * *

Is not this cause for self-congratulation?

NEW FACILITIES

The wonderful increase in the circulation of CAMERA CRAFT has been a surprise to all concerned in its production. The growing size of the magazine has made it necessary to alter many conditions not thought of originally, and many are now being thought of which were not entertained five months ago. A new press has been installed at the Sunset Press for the exclusive use of the magazine, and its capacity will be taxed to its fullest extent during the months to come. The new press is one of the latest Miehle's, the best press for high-class work in America. The excellence of the presswork on CAMERA CRAFT has been commented upon by magazines of every nation, and many inquiries have been answered as to the press used. The answer has been: "CAMERA CRAFT is printed entirely on the Miehle Press."

DEATH OF MR. HUNTINGTON

By the death of Collis P. Huntington, the Western photographers lose a good friend. Mr. Huntington's views upon advertising were strong and convincing, and the prominent feature in the advertising projected by him was pictorial effect. He believed that photographs could present to the people of the East, California as she is, the result being to the material advantage of Western photographers. Although the Southern Pacific will buy just as many pictures as it did before his death, and pay just as liberally, the old-timers in the craft will feel his loss.

We regret very much that a mistake was made in crediting the excellent picture of John Muir in the July number to Mr. Pilsbury. The picture was made by Mr. Frank La Roche of Seattle.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

THE AMERICAN MAGAZINES.

We like to see the best in all things and especially in the photographic publications of our own country, but when there is no best — only a flat level of mediocrity — the most charitable criticism is silence. For some reason or other our American contemporaries last month appear to have been dried up by the summer heat, and their pages are an arid waste where no new buds are to be found and the old flowers have a withered appearance.

From this general criticism we would exempt the *Photo Era*, which if it contains little in the way of technical instruction, is yet replete with good reading matter. Mr. Coburn's "Notes on Ozotype" are calculated to turn many a seeker after a pliable medium in that direction. Mr. Herbert White Taylor's article on the "Ethics of Photography" should help to deter thoughtless offenders against good taste and more peccant triflers with good morals. Mr. Geo. H. Hazlitt has an excellent and logical article on "What Is Legitimate in Artistic Photography?" and his conclusion may very well be quoted and commended for it is common sense. Says he: "There is no such thing as illegitimate photography. There is poor photography, medium photography, and good photography. There is artistic and inartistic photography. The scratching of a print, the adding to it of a shadow, the coloring of it by mechanical or chemical means, does not always make it a picture, but, from my point of view, it is not illegitimate by any means, and if it is done successfully, should be applauded and not condemned."

Anthony's Bulletin and the *St. Louis and Canadian Photographer* are entirely devoted to the report of the Twentieth Convention, and considering the value of the report the exclusion of other matter can well be forgiven.

THE FOREIGN JOURNALS.

The *Bulletin of the Belgian Photographic Association* is notable for its charming illustrations. The frontispiece, entitled "Partition Nouvelle," by G. Oury, is a magnificent interior. An interesting article by M. de Gerlache on "The Belgian Antarctic expedition is illustrated by some very charming photographs taken by moonlight and are very striking in their weird beauty.

The *Bulletin of the French Photographic Society* contains an account of a new method of color photography that we believe to be sufficiently interesting to be given in full, and a translation thereof can be found in the October number. The subject of obtaining photographic relief is discussed at length by M. Marion, and the same subject is also treated by M. A. Levy in the *Bulletin of the Italian Photographic Society*, which, like most of the foreign photographic journals, devotes much space to a description of the photographic exhibit at the Paris Exposition.

Photo Gazette of Paris — The most valuable article in the July issue is a translation from *Camera Obscura* of a paper by Chapman Jones on the importance of excluding unnecessary light from the camera, which the author maintains ought not to be effected by internal diaphragms but by external screening, and preferably by a rectangular prolongation of the front of the camera, adapted to the size of the plate it is to hold. The importance of this conclusion is enforced by a consideration of its application to other optical instruments, and also by reference to the fact that modern lenses have a covering power much greater than the plate on which they are used, the excess of image being the source of harmful reflected light in the camera.

Gaedicke's Wochenblatt has many good things, among them being a particularly lucid article on the chemical testing of the persulphates.

The Photographische Correspondenz of Vienna for July is excellently illustrated, and possesses a print in the "four-color process," a photographic copy of a landscape painting in oil, which the editors claim to be a perfect reproduction of the colors of the original. Certainly it is very beautiful, and finer than anything we have seen in three-color work. Among numerous articles of a technical character, the lengthy study (in serial form) of J. M. Eder on the "Sensitometry of Photographic Plates," is perhaps the most complete modern thesis on the subject.

English Amateur Photographer — Mr. Manly, the inventor of Ozotype, writes advising workers in this process to coat their own paper rather than buy the commercial article. From a considerable experience of pigment processes, we believe this to be good advice. One-half their value lies in the power to form the color or shade required. The Rev. F. C. Lambert's articles on pictorial composition maintain the great interest of the opening chapters, and all who have access to this publication should seek to read them. Mr. W. Thomas has an interesting article on local development — a method too much neglected by amateurs. We learn from the issue of August 3d that a great advance has been made in radiography. Mr. MacKenzie Davidson has invented a stereoscopic fluoroscope, whereby objects seen by the X rays are seen in solid projection and in their true relations. Its value to medicine and surgery will be great.

The supplement to the *Australian Photographic Journal* for July 20th consists of nine half-tone plates, illustrating the various phases of under and over exposure in connection with under and over development. The result gives the amateur a sheet by which he can govern his exposures, find his faults and correct them.

NOTES.

John H. Dickey, associated with F. Jay Haynes, the park photographer, died recently at Mammoth Hot Springs, Mont.

Herman Adams, Cashier of the Stuparich Manufacturing Company of San Francisco, is again in his office after an extended illness.

Blanent & Widden is the name of a new firm of photographers who have recently opened a studio at 131 Post Street, in San Francisco.

The slides and, in fact, all of the stock of the late Samuel Partridge have been purchased by Edward H. Kemp, who will conduct the business under his name at 121 Post Street.

Mr. N. C. Hawks, who for years has conducted the business of the California Camera Company, has turned over his interests to his son and daughter who will continue at the same location.

Mr. Robert Beneke, Superintendent of the Cramer Dry Plate Company of St. Louis, is spending his vacation in California. At present he is at Catalina, but will make a short visit to San Francisco.

U. Nehring of New York, maker of the universal ampliscopes, announces that a new convertible anastigmat, working at F. 7. 7., will be ready on October 1st. The excellence of the previous lens systems placed on the market by Nehring will give the new lens a general introduction.

Phenomenal increase in trade is responsible for many recent improvements in San Francisco, and the photographic lines are well represented in the improvements. The Stuparich Manufacturing Company, makers of fine mounts, have doubled their floor space, and last month installed thousands of dollars worth of new machinery.

A new catalogue of Collinear lenses, telephoto lenses and porro-prism binoculars has just been issued by the Voigtlaender & Son Optical Co. of New York. A chapter devoted to Collinear lenses for hand cameras is perhaps the most interesting to amateurs, as it contains the exact dimensions in every way of the lenses, together with a list of the cameras to which they can be attached. A copy will be sent upon request.

The Bausch & Lomb Optical Company, Rochester, N. Y., are again adding to their lens-making plant. The present building has a floor area of 138,000 square feet. The new wing is 96 feet long and 22 feet deep, the whole having a floor area of nearly 40,000 square feet. As the larger wing will be used for the grinding and polishing of photographic lenses, it is constructed with the utmost solidity, the piers of which the walls are composed being three feet thick at their bases. Huge windows occupy the spaces between the piers, admitting an abundance of light. The floors are specially designed to prevent vibration, being tested to 4000 pounds per square foot, or a total weight for the building of 160,000,000 pounds. About half of the smaller wing will be occupied by vaults for the storage of valuable material such as optical glass.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

A FEW SCATTERING HINTS.

Photographers who pride themselves upon the care taken in mixing their developers are the ones who use the hydrometer. A hydrometer is an instrument made use of by careful photographers to measure the strength or density of their solutions. By its use they keep their solutions at an even strength, and, therefore, obtain uniform results. Hydrometers vary a little in their measurements, but so very little that there need be no fear in using any one turned out by the manufacturers for ordinary photographic work. Formulas are often printed without information as to whether the crystal or powdered form of a certain chemical is to be used, but if the amount given is by hydrometer test there will be no difference in the ultimate result.

The easiest, as well as quickest, way to insure evenness in the hypo fixing bath is to keep a big demijohn filled with a saturated solution of hypo, and take from it, when needed, a sufficient quantity and add enough water to bring it down to eighteen or twenty hydrometer test.

In mix ng developers the same plan may be followed; one degree on the hydrometer represents ten grains of sulphite of soda and five grains of carbonate of soda crystals.

When hunting for a boarding-house very often the appearance of the front hall and staircase is enough to settle the question as to whether you will or will not stay, without the necessity of discussing the matter of terms. In the same manner the vestibule or doorway decorations of a photographer's studio either invite or repel. The window display or showcase will most certainly talk for or against the establishment. Whether you advertise in the daily papers or not *there* is your real advertisement, and in its composition lies the invitation to the public to walk in or go to the next man.

"Cleanliness is next to Godliness," and "Order is Heaven's first law." The ladies are the largest half of your patrons and must be catered to, as they are naturally more exacting on the particular points in view than are the men who have no skirts to soil. Good impressions will elicit good expressions.

For another thing the screens and backgrounds of the operating room too often hide many evidences of disorder, and some patrons are sufficiently inquisitive to look behind them. The operating room should be as neat as the reception room, and the latter as clean and cheerful as the staircase and doorway. The operator must be as tidy and as smiling as the lady who takes the order. That all dark rooms were invented for swearing and ranting is an unwritten law.

Above all sweep and clean and pick and wash and find a place for everything. This is the way to save time, to make friends and to be prosperous.

John A. Walker will succeed I. Boysen in his Sacramento gallery, and will broaden the class of work.

Artistic advertising of artistic photography has made Carruther's photographic studio in San Jose a winner.

Traveling photographers who make Hanford this year will have to pay a license of twenty-five dollars a quarter.

A fire in Pomeroy, Wash., on July 18th destroyed the gallery of Fox & Son. Loss, fifteen hundred dollars, with no insurance.

A. C. Platt of San Diego took his outfit to Mesa Grande during the recent Indian Fiesta and secured a number of magnificent pictures.

Both Steckel and Schumacher of Los Angeles have been awarded a silver medal for photography at the Paris Exposition. Despite the fact that American photographic interests were sadly neglected at the big show, this does not seem so bad.

A treat is in store for the lovers of art photographs during the first week in September. During that time Mr. E. S. Curtis of Seattle, will have on view at the art store of William Morris, 248 Sutter Street, a complete set of his magnificent Indian studies. Mr. Morris extends to all art lovers a cordial invitation to visit the exhibition.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

A WORD FOR THE BEGINNER.

If beginners in photography read all the advice given them and endeavor to put in practice all the things told them, there is good reason for them to become discouraged. However, let me add a few general words of advice to the tyro.

No necessity exists for entering into an investigation of the qualities of the various styles of lenses, plates and other appliances. The market is well stocked with good lenses and excellent plates. It is not wise to endeavor to follow the footsteps of a half-dozen photographic friends at once. Consult some one who may know your needs. Do not try all of the brands of plates one after the other, but stick to one suitable for the class of work you wish to follow, and if you do not succeed at once in obtaining good negatives, stick to it until you do. It will then be time, if you so desire, to try others and to perfect your knowledge of their different qualities. The same advice will apply to developers and should be made even more emphatic. Many a negative which would otherwise be good is spoiled by the continual changing of developers.

The beginner should thoroughly understand the making of a good negative before endeavoring to print. The negative is the starting point, and unless you understand the reasons for different results in negatives you will never learn the reasons for different effects in prints. A good negative necessarily makes a good print, but it takes a very clever man to get a fair print from a poor negative. There is a great difference in the work of even those who make simple snap shots. I know a San Franciscan who, on a recent trip to Europe, exposed six hundred films, yet lost only six exposures. There are others who waste half a roll through mere carelessness and lack of thought. There is a serious side even to snap-shot photography.

If you have a plate camera, landscapes, both with and without architecture, offer the best subjects to begin on, for they will perfect you in focusing, composition and the judgment of light. Portraits should be left alone until more experience is gained.

A camera is but a machine. The theory of "press the button, we do the rest," is a fallacy long ago exploded. With a little care, a little patience, and earnest study, you will obtain *results* and be well repaid. Without a due regard for these requisites you will be doomed to disappointment and your camera to the cellar.

The Star King Fraternity of the Unitarian Church, Oakland, will hold an amateur salon during the coming winter.

The World Wide Photo Exchange is one of the largest photographic societies in the world, numbering six hundred and fifty members, who exchange prints by correspondence. The dues are twenty-five cents a year, including the *Photo Exchange Bulletin*, which contains the names and addresses of members. Send subscriptions to F. R. Archibald, Secretary, Rock Creek, Ohio.

The photographers who have been using Blitz Pulver flash-light powder in the past will do well to lay in a supply at the earliest possible moment. During the middle of August the factory of T. H. McCollin & Co. of Philadelphia, makers of the powder, blew up, and the city authorities have refused to allow them to rebuild in the city limits. The news was recently received by Mr. H. J. Shillcock, who handles large quantities of the powder.

Ray filter work is receiving a great deal of attention from local amateurs, especially since Dr. Power's recent demonstration upon the subject. The ray filter, advertised by Messrs. Burke & James of Chicago, is simple of manipulation and very popular. It is made of two optical discs of ground and polished optical glass. One of them is coated with gelatine, containing a die which is spectroscopically perfect, and then the two discs are cemented together like an achromatic lens with Canadian balsam. The ray filter is of such a color as to give all of the color values, and yet it is so transparent and clear as to enable very quick exposures to be made through it.

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

DEVELOPERS

With the great number of developing agents in the market, each possessing its own peculiar characteristics, it is not to be wondered at that the average amateur photographer, and professional, too, for that matter, often feels at a loss to know just what particular reducing agent will best answer his purposes. Dr. Eder is authority for the statement that all known developers are divided into two distinct groups, according to the manner of their action on the sensitive film. In the first group he places pyrogallol, pyrocatechin, hydroquinone and adurol. The characteristics of these developers are that they develop the image progressively, step by step, according to the varying conditions of light in the different parts of the subject. These reducing agents are known as the "hard-working" or contrast-giving developers, and are characterized by great vigor and brilliancy.

The second group embraces such developers as eikonogen, rodinal, amidol and metol, the characteristics of which are to bring all the details of the image to the surface almost simultaneously, but which quickly disappear or sink into the surface of the film, and requiring much more time to secure the necessary density. Softness and detail are the dominant characteristics of this class, directly opposite to the first group, which gives contrast and density. Such developers are, therefore, the most suitable for under-exposures or for subjects where strong contrasts are undesirable.

There are a few developers, however, which seem to combine the peculiar properties of both these groups; they are toledol, metacarbol and ortol, which gives contrast and brilliancy similar to the action of the first group, and softness and detail the chief characteristics of the second group. These comparatively new developers are meeting with great favor, as they possess the great advantage of producing equally good results with negatives, transparencies and plates, or Bromide and Velox papers. However, it is practically impossible to say which is the best developer, so much depending upon the conditions governing their use. The following points of difference will be found valuable in the selection of the proper reducer for the particular work in hand:

PYROGALLIC ACID

The oldest, and up to this time, most universally used of all dry plate developers among the professional workers is rapidly being supplanted by the newer discoveries. Its greatest drawback is its tendency to stain whatever it comes in contact with, including the film. Its popularity is due to the fact that it is a powerful yet easily controlled developer, easily manipulated under the most variable conditions. The alkali mostly used is carbonate of soda, but ammonia .880 is still popular with many of the "old school." It can be used in conjunction with metol, giving the combined qualities of a hard-working, density-giving developer with those of a soft-working, detail-producing developer. With normal exposures it works with moderate rapidity, the detail and density growing together with perfect balance. With under exposures and forced development the contrasts are too harsh, and there is a danger of fog or veiling in the shadows.

PYROCATECHIN

Gives with caustic soda a very energetic developer, which keeps well without discoloration. It does not stain, and works perfectly clear and without fog, even with prolonged development. It is very sensitive to the addition of bromide of potassium and, therefore, offers great latitude in exposures. Pyrocatechin has a peculiar quality not possessed by any other developer. It is not influenced by fixing soda, and development and fixing can be carried on at the same time. The development and fixing takes place quite uniformly, the image appearing as usual, growing rapidly in density, and developed and fixed in about five minutes. Great over-exposure can be remedied by the addition of water and bromide of potassium or the use of old developer, and in case of under-exposure the fixing developer will give more detail than any other reducer, without fear of obtaining a hard negative.

(The conclusion of this article will appear in the October number.)

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

Forty new members were admitted at the last regular meeting of the Board of Directors, held on August 13th. Gus A. Russ was admitted to life membership upon the payment of one hundred dollars.

The request of the New York Camera Club for a set of prints, to be exhibited in their clubrooms, was acted upon favorably, and the exhibit will be sent in December. W. J. Piatt, Oscar Maurer and W. J. Street will compose the committee on selection.

The Annual Print Exhibit will be held during the early part of November.

A letter from the Montclair (N. J.) Camera Club, asking for the feeling of the club toward a prospective print interchange along the lines of the Slide Interchange was discussed at some length, ending in a favorable decision. The Montclair Club was informed that the California Club would heartily co-operate in such a movement.

The committee having charge of the installation of the new lockers announced that their work had been completed. It was also announced that elevator service on Sunday would be had in the future.

The Directors then entered upon a discussion of the proposed salon, after which an adjournment was taken.

Vice-President Webster wishes to enter an official denial of the rumor which has recently been circulated to the effect that the Camera Club is about to move into new quarters and levy an assessment of ten dollars upon each member. The club was never in a better condition financially, and although a move is contemplated no assessments will be necessary.

The outing to Ignacio, Marin County, on August 26th was one full of opportunities to those who went for pictures. Conditions could not have been better, and a large crowd spread over the meadows and tules and along the pleasant roadway.

The next outing, as has been announced, will have Asti, on the California Northwestern Road as the objective point. A stay overnight will be had, and Chairman Street of the Outing Committee has made a special trip to complete the arrangements.

On August 7th Dr. H. D'Arcy Power explained to the club the use of his bichromate developing lamp, the first description of which appeared in the August CAMERA CRAFT. Numbers of the club members have since perfected for themselves a lamp similar to the one exhibited by Dr. Power, and no innovation has pleased them more.

Professor O. V. Lange gave a demonstration on "Negative Retouching and Improvement" on the evening of August 21st. The demonstrator is recognized as an authority upon this branch of the work, and the evening was most valuable to those present.

The alphabetical print list has been suspended, and members are requested to send in their new prints for the walls.

LOS ANGELES CAMERA CLUB.

At the meeting of the club on the 24th of August, the Lantern Slide Committee exhibited for the last time those slides which have been selected to send to the National Slide Interchange. There has been a marked improvement in the quality of the slides recently received by the committee, and the consignment to the Interchange will be full of local color and of much interest to our fellows throughout the country, whose eyes are turned toward the "Land of Sunshine."

Much interest is being taken in the selection of a club emblem, which will be made at the next meeting. Very soon the members of the club will be able to adorn their lapels with the club insignia.

The results of their vacation work are being proudly exhibited by some of the club members who have returned from their summer outings. Santa Cruz, San Diego, Santa Barbara, Catalina Island and some of the Sierra Madre Mountain resorts have all contributed to the pleasure of the picture-makers.

The Terminal Island outing proved an unqualified success. Standing room was at a premium in the club's private car, and a happy, sun-burned crowd filed out of it on the return to the city.

OREGON CAMERA CLUB.

Sixty-nine new members have been added to the club roll in the last three months, making the present membership one hundred and seventy-five. This has been the direct result of the regular weekly lectures and daily demonstrations of Miss White, who began her work in the club just a year ago, at the time the Goldsmith Brothers left for San Francisco. The remarkable improvement in the work of the members will be shown at the annual exhibition in October, which will far outstrip any hitherto given. This occasion is being looked forward to with much interest by the public at large. The lantern-slide lectures will also be resumed this fall, the club having renewed its membership in the International Slide Association.

SKAGWAY (ALASKA) CAMERA CLUB.

The Camera Club visited the romantic woodland bottoms of Tihi Sanki, down the canal in the direction of Haines, on July 21st, and then went to the Chilkoot cannery and the fishing grounds near by. The club visited the lake as well as the fishing grounds. A splendid trophy of the day was an immense American eagle, brought down by W. A. Reid, with his rifle. The ligament in one wing was alone injured, and the bird was scarcely hurt. The last outing was to Chilkoot Pass Summit and Davidson's Glacier, down the canal.

Plans are being rapidly perfected for the organization of a camera club in Redwood City. N. B. Graves and L. Otzen are at the head of the movement.

An effort is being made to organize a club in the Western Addition, San Francisco, and to provide quarters and appliances. Eickhoof & Derby, 1422 Polk Street have the membership roll in charge.

The Pendleton Camera Club is taking a prominent part in the proposed street fair to be held in Pendleton during the fall. They intend to originate a number of new features and expect to attract many camera enthusiasts to the show.

At the last regular meeting of the Alameda Camera Club Mr. F. W. G. Moebus was elected president to fill the vacancy caused by the resignation of W. J. Robinson, who recently left for the Hawaiian Islands. The club meetings will in the future be held every Tuesday night. An enjoyable outing was had to Lake Chabot on August 19th.

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"WHY?"

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SAN FRANCISCO

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NOTE:—Subscribers who do not receive CAMERA CRAFT promptly will confer a favor by sending a postal card to this office. The omission will be supplied and an investigation made. The editors will, at all times, be ready to carefully consider manuscript and photographs. When possible, all manuscript should be typewritten.

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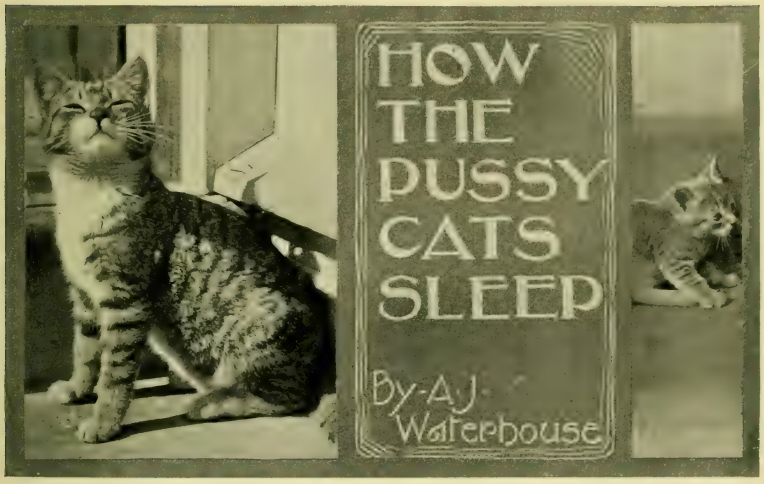
A PHOTOGRAPHIC MONTHLY

VOL. I. SAN FRANCISCO, CALIFORNIA, OCTOBER, 1900. NO. 6.



ILLUSTRATED BY E. C. CLEMENT.

The old cat said these things to me,
As I talked with her 'neath a spreading tree.
It was told as a secret — which you will keep -
This story of how the pussy cats sleep.

Here is the way the pussy cats sleep:
All cuddled up in a furry heap,
Sailing away to the Dreamland sweet
Where mice are remarkably good to eat,
Where never a woman doth seek a broom,
And say: "Now scat! Get out of the room!"
Here is the way the pussy cats go
Out to the world of dreams, I know:

Going, going, going — No,
I'm not asleep; it is not so.
Can't you see that my eyes still blink?
That I am asleep you need not think.

Here is the way the pussy cats sleep:
Closer and closer the eyelids creep.
Mother and babies, a comical squad—
Paws made of velvet, catastrophe shod—
Sailing and sailing away, and away,
To the land where the mice, as greeting, say:
"Eat me, oh, eat me." Away they go
Out to the world of dreams, I know.

Going, going, go— Not yet.
Scarcely my lids have met, have met.
Only say "Rats," and you shall see
The world of action still holdeth me.

Here is the way the pussy cats sleep:
Out of the day world, over the deep
Of sleep and dreams that circles us here
Where only the phantoms of things appear.
One that is large and three that are small,
With one sleep mantle to cover them all;
Four furry messengers sent from the here
A message to bear to the Dreamland near.

Going, going, going — gone.
Sailing away in Dreamland's dawn,
All cuddled close in a furry heap—
Here is the way the pussy cats sleep.

ANIMAL PHOTOGRAPHY AS A BUSINESS.

WITH A FEW WORDS ON BELGIAN HARES.

By A. W. Rice.

ILLUSTRATIONS BY THE WRITER.

"POSING LIKE AN ACTOR"

IN THESE days of artistic effects by photography very little has been said or even thought about the cost of obtaining an artistic photograph. So long as the desired effect in a picture is obtained, it really matters little on the outlay it took to accomplish the result; but in making animal photography a legitimate business, these things have to be considered, and the method used to obtain the best result with the least expenditure of plates has to be brought down to as fine a point as possible.

During the late "craze" of fanciers for finely-bred Belgian hares, there was considerable of this work to do. In picturing a fine, high-scoring animal, one would want to be fairly well acquainted with the winning points of a perfect specimen, so as to cover up the defects of the animal in question and to bring out the best points as prominently as possible in the finished photograph. To go into detail about these things would mean a long article on the merits of the little pets themselves, and would not come appropriately under this head.

By a series of experiments, early in my photographic life, with cats and kittens as my subjects, I found that bright sunlight alone could not be sufficiently controlled, as the shadows would be too deep and again would never come just where they were wanted. Another thing to be considered was the inadvisability of making a journey to a gallery, for the finely-bred pets are very delicate and more susceptible to cold and excitement than any other animals. It therefore became necessary to make the exposures at their hutches.

By stretching an eight by ten foot piece of sheeting about seven feet from the ground, a soft, subdued light is obtained that will yield a good pyro negative, with a twenty-fifth of a second exposure. The color of the hare has considerable to do with the exposure, it being a rich rufus red, and I

"SIX LITTLE RABBITS."

obtained the best results with Cramer's Isochromatic instantaneous plates.

A small table set against a wall or fence, with a light-clouded headground, hung so as to act as an extension on the table, makes a very good throne. Always being careful that the table is just large enough to hold the rabbit, and by focusing my camera to include the whole top of the table, I became sure of my subject. After focusing on the center of the table and adjusting of the shutter and plate-holder, the animal is placed on the throne and the rest lies merely in the patience of the operator and the humor of the little subject. I have tried in vain to pose an animal, and have at last decided to let them do their own posing, as you can never obtain the camera point of view when handling the subject. My place is invariably behind the camera with my eyes on the subject. Sometimes a sharp whistle or stamp of the foot will attract attention from the little fellow, and he will pose like an actor. Never but once did I need to take more than one exposure, and that was due to my own carelessness.

A YARD OF BUNNIES.

DIRECT CARBON PRINTING WITHOUT TRANSFER

BY H. D'ARCY POWER, M. D.

HOW TO OBTAIN AN UNREVERSED CARBON PRINT WITHOUT TRANSFER OF ANY KIND, WITH NO GREATER TROUBLE THAN IS INVOLVED IN MAKING AN ORDINARY SILVER PRINT. THIS PROCESS MARKS THE GREATEST ADVANCE IN CARBON PRINTING FOR TWENTY YEARS AND IS HERE PUBLISHED FOR THE FIRST TIME. EXAMPLES OF THIS WORK CAN NOW BE SEEN AT THE CALIFORNIA CAMERA CLUB. OTHER ORGANIZATIONS DESIRING TO EXHIBIT THE SET OF PRINTS CAN DO SO BY FILING WITH "CAMERA CRAFT" A REQUEST FOR THEM. THE EXHIBIT WILL BE SENT IN THE ORDER OF THE REQUESTS RECEIVED AND CAN ONLY BE RETAINED ONE WEEK.—EDITOR

More than a year ago I experimented with the printing of carbon tissue through a film of transparent celluloid, found that no perceptible difference of definition resulted from its interposition, and that, on the contrary, the image was rather benefited than otherwise by its use. In these experiments the carbon tissue was squeegeed direct from the sensitizing bath on the celluloid, the outer surface washed clean, and when dry the tissue printed through the celluloid. After development in the usual way, the celluloid was backed up by squeegeeing it in optical contact with paper, or by coating it with a layer of paint. In this way I obtained beautiful prints, having a highly polished surface, that elicited much praise from those who love that kind of thing. Some time elapsed before it occurred to me that celluloid with a ground glass surface could be printed through, but one day I tried the experiment, and was not a little astonished to find that the image developed nearly as sharp as with unground celluloid. This solved the whole difficulty of direct printing. I coated a sheet of ground glass celluloid with the usual gelatine and pigment coating mixture. To sensitize it, it was only necessary to immerse the celluloid in the bichromate solution, and hang up to dry.

Printing was done as with silver paper, no safe edge being required. Development was proceeded with immediately, the safe edge being unnecessary, and the moistening and pressure not needed. Direct from the printing frame it passes into the hot water, is washed up, dried and backed. The backing may consist of paper of any desired tint or grain, squeegeed into optical contact with the print by means of a solution of gelatine; or it may be paint ground in varnish, such as may be bought anywhere.

By judicious backing prints of exceeding beauty may be obtained. The ground celluloid at present on the market gives a surface slightly more mat than is desirable for small subjects with fine detail. This, however, may be easily reduced to any extent desired by rubbing the surface with a mixture of one part of ether in eight parts of alcohol. I expect to obtain from the makers, in a short time, a celluloid with a finely grained surface, and when this is on the market, and the Elliot or Autotype Company coat the same with pigmented gelatine, carbon printing will be the simplest process in existence. Let me here sum up the advantage of my method of working :

First, Tissue, after sensitizing, dries flat and smooth.

Second, Requires no safe edge.

Third, No transfer and subsequent waiting prior to development.

Fourth, No second transfer to obtain correct position.

Fifth, A surface that can be readily spotted, retouched, offensive high lights toned down, or painted out, or the whole picture tinted as a crystoleum.

Sixth, After the picture is produced, the power of choosing the tint and apparent texture of the surface it shall seem to possess.

Seventh, A surface that is indestructible and may be washed, thus permitting framing without glass, whereby the purity or tint of the print is spared the modifying effect of color in the glass.

Against these many advantages the only added inconvenience is the trouble of coating the celluloid. Until celluloid coated with pigment can be bought, the worker desirous of using this process may choose one of three courses:

First, He may coat the celluloid himself, which is a little troublesome, as it is more difficult to handle than paper.

Second, He may sensitize ordinary carbon tissue and squeegee it to the smooth side of the frosted celluloid. If he follows this method he will need to take care that no air bubbles, even the smallest, interpose between the tissue and the celluloid, and he will also need to be careful that as the tissue dries it does not separate from the celluloid surface before printing, or loss of definition over the detached portion will result.

Third, Tissue may be sensitized, and printed in the ordinary way, transferred to celluloid, and then backed up. This last method, while the same in all respects as single transfer, gives the correct position without a double transfer. It permits of choice of backing and has the advantage of absolute sharpness of definition. Until coated celluloid is placed upon the market, it will hold the first place with the general worker and is the method I at present employ.

I have not found that any coating of the celluloid with chromatized gelatine is necessary, but some care is required in squeegeeing to the final support that no air bubbles intervene. They will cause stars on the final print. Spotting and retouching is best done with oil colors, and the power of modification is almost unlimited.

Such in brief is the process I would urge all carbon workers to at least try. The facility of working, and the beauty and permanency of the prints will undoubtedly assure it a prominent place among photographic printing methods.

NEGATIVE BY PILSBURY.

SUNSET ON THE BAY.

PADEREWSKI.

THIS PHOTOGRAPH OF THE FAMOUS PIANIST WAS MADE BESIDE HIS PRIVATE CAR IN LOS ANGELES BY W. KLECKNER OF MARCEAU'S GALLERY. THE EXPOSURE WAS MADE LATE IN THE AFTERNOON UNDER ALMOST IMPOSSIBLE CONDITIONS, BUT THE RESULT WAS MOST SATISFACTORY TO BOTH THE PIANIST AND THE OPERATOR.

SIMPLICITY, EXPRESSION AND TEXTURE IN FLOWER STUDIES.*

By O. V. Lange

Children of the sun's first glancing,
Flowers that deck the bounteous earth;
Joy and mirth are round ye dancing,
Nature smiled upon your birth;
Light hath veined your petals tender,
And with hues of matchless splendour
Flora paints each lovely bell.
—*Schiller.*

FLAG LILY.

THIS INITIAL plate has the elements in it that go to make up what is termed the "decorative style," and is intended more to tickle the fancy than to affect the finer sensibilities and emotions, as a true picture, pure and simple, should. My apology for introducing it here is merely for the sake of variety. Its history is as follows:

After contemplating the proof print of the flag lily, I saw nothing interesting in it to attract, much less to hold, the attention, therefore, it was an unsuccessful study. However, I felt a strong desire to transform this successful candidate for the ash-barrel, if possible, into an acceptable decorative print. The subject had first to be invested with some interesting feature, for which external resources had to be drawn upon. Its peculiar composition of outline against an almost white and expressionless ground suggested a mat, shaped after the fashion of a Gothic window. This of itself was not interesting enough, but led to the idea of giving the effect of streamers of light entering diagonally from the side, thus apparently flooding the subject with merry sunbeams. To accomplish this the flower was matted and printed first, then the piece of paper cut out of the mat was put in place on the print with a glass over it and the exposed margin printed to the proper depth. The rays of light were imitated by straight pieces of paper held diagonally across the print, and tinted in the shade until the desired effect was produced. Thus an otherwise uninteresting subject was, by employing a decorative style of treatment, made quite passable in a collection of studies.

In the next illustration is found a specimen from the botanical gardens of

*Concluded from last month.

SANTA BARBARA POPPY.

IRIS.

the University of California, the Romneya Coulteri, also called Santa Barbara poppy. It is a native wild flower, and although now extensively cultivated, has lost little of its picturesque rustic characteristics. The peculiar texture of this beauty is not difficult to render by photography, when using a rather contrasty side light. I made the exposure comparatively short and the development soft and prolonged. The slightly curving stems lend themselves quite readily to manipulation, but the leaves are so shiny that they are a spotty, disturbing element impossible to entirely overcome. A dark gray horse blanket was found to be the best surface for a background, so that the flower would appear to stand out in atmospheric relief and make us imagine that if we were to touch the plant it might vibrate, thus expressing in the picture the sentiment of pliability.

In the following reproduction we have a representative of the iris family. This subject I noticed one morning last spring in my garden, and it so pleased my fancy that I made several negatives of it, and worked until the effect sought after was accomplished, which was to express in a picture the dewy crispness of the petals, with the stem apparently swaying in a gentle breeze. To carry out its farther characteristics of simplicity and repose a ground of smooth manila wrapping paper so lighted as to have almost imperceptible graduations of shading from top to bottom was used. This was found, after numerous trials, to give the best effect of repose.

How different in character from the iris is the sprawling, almost noisy, tiger lily, yet with all its faults I love the striking individuality of the blossoms. It is one of the easiest flowers from which to get a showy effect, and is,

therefore, more of the decorative type than any other of the lily species. As this flower is spotty and striking, it would, on a plain, even ground, be still more so and to such a degree as to become almost repellant. To overcome this evil we must have a foil for the purpose of counteracting the spots in the immediate distance. They must be somewhat lighter, broader and more indefinite than the prevailing ones on the lily. By this means we get what artists term a unity of effect, so that what would have been noisy and harsh under a wrong treatment becomes more quiet and subdued.

In all of the subjects presented so far in this series of articles the dominant

TIGER LILY.

JAPANESE LILIES.

feature was extreme simplicity, for the purpose of interpreting certain subtle artistic qualities inherent in flowers that would necessarily have been more or less lost if a greater number or variety had been displayed. The Japanese lilies and buds are, therefore, somewhat of a departure, the main motive not being texture, nor the finer gradations of *chearo oscuro* so much as the arrangement of the different elements to get an attractive drawing. When applying photographic means as a mode of expressing the beauties in natural scenery or still life, we are limited in that we can not compose as the draughtsman, by altering or rearranging the composition in case it does not properly interpret preconceived ideals. The photographer selects the composition and alters or rearranges before the plate is timed, and then must abide the more or less unalterable result. Therefore, I contend that to produce a truly appealing, or a good story-telling picture, requires as much, if not more, of the art instinct in the photographer than it does in the draughtsman and painter, who can potter and fumble around for days and weeks before he obtains what he is after.

I do not wish it understood that I class the minor art of photography with the older and more noble art of painting, for the painter can draw upon his imagination for subjects and has an infinite variety of resources in his art that the limitations of the minor art excludes it from. But this does not in any way mitigate from the truth of the assertion, that for depicting sympathetically and appealingly objects in this phenomenal world of ours, the painter must look to his laurels, for such beautiful creations have been brought into being by some of our best amateurs and professionals, that it has been impossible to tell whether it was a good photographic copy from a painting or a *picture* direct from nature.

To return to the lilies, the problem in this subject was to properly arrange the various lines and balance the masses so as to give a satisfying appearance of unity and symmetry at the first glance, yet showing a variety seemingly unstudied. Now, as regards the ever-important background, it will be noticed that the lower lily nearest to the source of light is opposite the darkest space, while the upper one, having less illumination, is against the mottled gray portion; the two buds have in part a similar arrangement. The object of this was to convey quickly the fact that the lower one was in a plane several

EASTER LILY.

inches this side of the stem, while the full-faced one is nearly as much in the rear, although on a flat surface they seem to be at different planes of distance. When looking at the large original print, with one eye through a tube, this stereoscopic illusion becomes strikingly apparent.

The general scheme of composition in the Easter lily is similar to the foregoing one, while the lighting is more concentrated, thus throwing the lily that is in profile way back into the shadow. The Easter lily has, from the earliest times, been associated in the mind of mankind as symbolical of sacredness and purity. To carry out and emphasize this beautiful sentiment, it seemed well to convey the feeling that it stands in a sanctuary, while the pure light from above, mellowed by its passage through stained glass, unconsciously carries the mind back to the soothing music of the organ, and away from the surge and din of daily toil.

These jottings on a few flower studies are made with the desire to awaken an interest in this fascinating branch of the art, and showing in humble beginnings the possibilities in the untrodden paths that are before those who earnestly seek to get rid of some of its seeming limitations and place photography upon a higher plane of expression, so that it may be accorded the recognition among the arts that it deserves.

[So many requests have been made to CAMERA CRAFT for information as to the printing methods used by Mr. Lange in producing his flower studies, that he has been persuaded to write, for the next issue, an article covering every detail of his work. The work of Mr. Lange is known throughout the country, and CAMERA CRAFT and its readers are to be congratulated upon securing this series of articles from his pen. The next article will be illustrated by a number of California landscapes.—EDITOR.]

NEGATIVE BY G. DE LA ROQUE.

OPORTO.

PERSULPHATE OF AMMONIUM.

Those who use a solution of ammonium persulphate as a reducing agent are advised that this solution should be made fresh as wanted. Noting a tendency of the solution to blow the cork out of the bottle, a letter was addressed by CAMERA CRAFT to Messrs. Merck & Co., who have one of the largest analytical laboratories in the United States.

The following reply was received:

"Replying to your inquiry, we would say that the phenomenon you refer to is unquestionably ascribable to the influence of the warm weather. Aqueous solutions of ammonium persulphate give off oxygen gas when warmed, the change being illustrated by the following equation:

$$(NH_4)_2\,S_2\,O_8 + H_2\,O = 2\,(SO_4\,H.NH_4) + O$$

Ammon. persulph. = Ammon. bisulphate
\+ +
water oxygen

"In this way as much as 16 grammes of oxygen gas may be liberated from 228 grammes of ammonium persulphate.

"Trusting we have served you, we remain,

"Faithfully yours,

"MERCK & CO."

CHEMICAL TESTS.

This valuable reducing agent is coming into such general use that the following method of determining its purity (translated from the *Chemicker Zeitung* 9,099, p. 699), will be of value to those who are able to make simple analyses: Dissolve 2 to 3 grams of the persulphate in 100 c. c. of water. Of this solution take 10 c. c., add 0.25 to 0.5 grams of potassium iodide in a glass-stoppered flask and warm for ten minutes at a temperature of from 60° to 80°. Iodine will separate. To this add some drops of starch solution, which will produce a blue color; and then run in a deci-normal solution of thio-sulphate of soda until the blue color disappears. The percentage is calculated according to the formula: $KSO_4\,X\,1K = K_2\,SO_4\,X\,1$. So that 127 of free iodine are equal to 135 parts of persulphate. Therefore 1 c. c. deci-normal thio-sulphate is equal to 0.0114 grams of ammonium persulphate.

DRY PLATES AND MOISTURE.

Valuable experiments have recently been made by E. Howard Farmer (*Vide British Journal of Photography*, July, p. 457), from which it appears that if dry plates be warmed immediately before use, so as to make them bone dry, their power of reproducing fine detail and gradation will be enormously enhanced, and to a lesser extent their rapidity, and the facility with which they gain density during development. This is said to be particularly true of rapid and Orthochromatic plates. The temperature must not exceed 93° C. (200° F.), on pain of producing fog or separation of the film. The drying can readily be effected on a water-bath — that is a kettle with a flat top. Portrait photographers, and especially half-tone workers should try this experiment.

PHOTOGRAPHING CATS AND OTHER ANIMALS.

By E. C. Clement.

Illustrated by the Writer.

SP-S-S-S.

IN THE expression, "quick as a cat," lies a truth that was never brought home to me until I attempted to snap him in his various moods. My first attempt resulted in showing fairly good bodies and feet, but the head and eyes were simply a streak of blur. One attempt showed no head at all. The speed of the shutter was increased until I secured fairly good heads, but the negatives were so under-timed that I had nothing but the shadow of a cat. Patience galore was necessary to get the cat in some position and attract its attention, so that it would overlook the movement of the shutter. After many plates had rapidly found their way into the lye jar, I discovered that the best way to take a cat is to let it settle down of its own accord somewhere near where you want it, and then slowly, very slowly, put your camera in place, being careful not to look the cat in the eye during the operation, as it will immediately rise and come to you, or dodge under the porch. Go about the work as though you were paying no attention to the cat, and if you notice, by a glance through the finder, that it is becoming too deeply interested, stop for a moment, and walk away until it settles down again.

You may forcibly, so to speak, "pose" a cat occasionally, but my sad experience, and the pinholes in my patience, leads me to advise all not to attempt it, and especially if you want natural pictures of the animal. When taking the picture of a cat looking at the camera, I have had my best success in getting the "eyes" by slowly attracting its attention to the lens with a finger, and as soon as it rested on the edge of the barrel I pressed the bulb, taking care to see that the hand holding the bulb was out of sight.

In photographing donkeys and other large beasts, my experience has taught me to lead the animal to a place where the background is what I desire, then set my camera (which they usually develop an appetite for) and gradually lose interest in him until he does the same with me. Now I watch until something attracts his attention away from the camera, and the trick is done.

In photographing wild animals, such as squirrels, deer, etc., one usually gets the best results by carefully setting the camera, focused where you expect the animal to appear, then covering it up with brush and grass and getting well out of the way. A strong bulb and fifty or sixty feet of tubing are some of the

necessities. Give your patience good exercise and you are fairly sure of a pleasing result. One good negative of any animal, in his own pose, with all his natural expressions, is well worth the time, trouble and patience to secure it, and the second effort will seem surprisingly easy.

My first successful chipmunk picture was the result of some three hours patience and work. The camera, carefully concealed, all but the terrible "eye," was focused on a rock in full view of the little fellow who scolded and whistled at us from his private stump a couple of rods away. When all was in readiness a peanut was shelled and a portion of the meat tossed toward him. At the movement of the hand to throw it he immediately disappeared, but soon came out again, and his curiosity and appetite led him to see what we had thrown. He seemed delighted with its flavor when he had found it, and his doom, photographically, was sealed. Another small piece attracted him nearer, and we withdrew slowly. Nearer and nearer he came until he mounted the rock in front of the camera, crawling timidly over the edge and keeping his eye riveted on the lens. Our hearts stopped beating and we held our breath. He was crouching close to the rock, he grabbed the nut and away to his stump in a twinkle, and with the nut safely stored away in his cheek, he whistled at us in defiance. An experiment with our patience was next in order, and that being satisfactory, the rock was slowly approached and another nut placed in position. By this time he had eaten four or five nuts and he was not so eager, but he finally came and again crawled up the side of the rock. He stopped some moments on the edge and eyed the lens suspiciously. He reached out for the nut, but it had purposely been placed a little further back this time and he was obliged to "get in range" in order to secure it. He picked up the nut — and

TAB.

sat up right where we wanted him. For an instant we forgot ourselves and stood breathless, suffering from a pure case of "buck-fever." We came to, however, in time to snap him. At the click of the shutter he let the nut drop, sprang into the air, uttered a shrill whistle and disappeared. His suspicions as to that "eye" in the brush had been verified, "it was alive." All sorts of coaxing would not bring him into view again.

THE CANARY?

As has been said, "patience" is the main requisite in taking animal pictures, and you must expect many failures, even where there seems no reason for it. I have made many a snap of what I thought, for the moment, would be my best picture, only to find upon development that it did not look as it should, and experience has taught me that animals have very deceptive poses and expressions, so to speak, that seem perfect to the eye but are far different on a negative. There is nothing left but to try again, avoiding that position, and time and patience will bring lasting results.

As for an outfit, many recommendations have been made, but I am of the opinion that any ordinary camera with a moderately fast lens will answer. It is seldom that a time exposure can be made with an animal as a subject, and it is therefore necessary to make quick exposures. Many writers discourage the making of animal pictures in the sun, but intelligently used, sunlight is one of the points in animal portraiture that lends value to the whole. The picture of "Tab" is an example of this, conveying to the mind the true idea of a pleasant bask in the sun. If the picture had been taken in the shade or by a moderated light it would have been a picture of a cat, but would have lost the idea which it was meant to convey.

NEGATIVE BY J. E. HARE AND C. M. STANLEY

MATTING AND BINDING PRINTS FOR EXHIBITION.

By James G. Barr.

NEGATIVE BY W. G. WOODS. DESTRUCTION.

THE hanging committee, who will officiate at the coming salon at the Hopkins Institute of Art will, in all probability, make the usual rule governing such affairs to the effect that all pictures presented must be framed and provided with means for hanging. It is not likely that any restriction as to size will be made, as the committee will be extremely liberal in the construction of the rules, but they will insist that all pictures be presented in such shape as to be easily hung and present a finished appearance when on the walls.

The bare announcement that all pictures must be framed might prevent many from exhibiting, on the ground of expense, but this is a needless fear, as expensive frames are not necessary, and rather a simple, harmonious dressing for the picture desired. In the matter of small prints, framing may be dispensed with entirely, and the picture matted and bound so as to present a finished appearance by the selection of harmonious surroundings at a trifling expense for material.

The glossy surface and brown tones having in a large measure given way to the more artistic mat finish and black and white effects, it is fair to presume that the larger portion of the exhibits will be printed on these papers. No one has been quicker to cater to the prevailing styles than the frame-maker, and many rich, quiet effects in black or very dark oak are shown, any of which make an appropriate setting for the black and white picture. The color of the mat is one item of importance. For Velox or other developing paper in full black tones, there are several good shades in the Melton-faced boards, from Setlo gray, the lightest of the group, on through the various shades of Scotch gray, ivy green, royal and wine brown and carbon black, any of which harmonize well. For platinum paper, which is of a slightly warmer shade, there is a special brown shade on the market which affords a particularly happy combination, although any of the darker shades of carbon black or royal black may be used to advantage. For platinotypes, in full black shades, the carbon black or Setlo or Scotch gray work well, and for platinum or bromide, in sepia tints, there are other shades in drab, tan and chocolate.

Individual selection must govern the choice of the shade, however, and there are many boards and papers which harmonize with a picture most effectively. Try as many as possible before making the selection. Ordinary straw board or the heavy manila board or plain board covered with certain shades of manila paper may sometimes be used to advantage. Again, there

NEGATIVE BY W. J. STREET. ELK. (A TELE-PHOTO PICTURE.)

are beautiful shades to be found in ingrain wall paper, so this becomes merely a matter of judgment, as it is of no consequence what the material is, so long as it does not conflict with the tone of the picture.

An effective mat may be made from the many rich shades of taffeta silk. The Rembrandt board, which may be had in all sizes, shaded from light to dark diagonally across the sheet, yields striking results, and comes in black and sepia tones.

The mat should be cut a trifle smaller than the picture, and can be cut with a sharp knife on a piece of glass, or better, a piece of zinc, which does not dull the knife so readily. The knife should be held on a slant, so as to make a beveled edge, and a clean cut must be made with clear, sharp-cut corners. A regular beveling machine is, of course, more handy, and will make a truer cut. Almost every frame-maker has such a machine, and will cut the mats at a trifling cost. This bevel edge may be colored if desired. White is effective where print and mat are both very dark, and a relieving line is desirable.

An under or sub mat is often used. This may be of white or cream, or of any tint harmonizing with both picture and mat, and is sometimes applied on one side and end only. Generally speaking, it should be a mere suggestion, and not so pronounced as to catch the eye and lead it away from the picture.

As to the width of the mat this will depend on the size of the print, but for all sizes under 8 x 10 it should not be less than one-third the smallest dimension of the picture. Ovals and circles are not good form, although all rules have exceptions, and there are, no doubt, exceptions to this. They should not be used in landscape work, however.

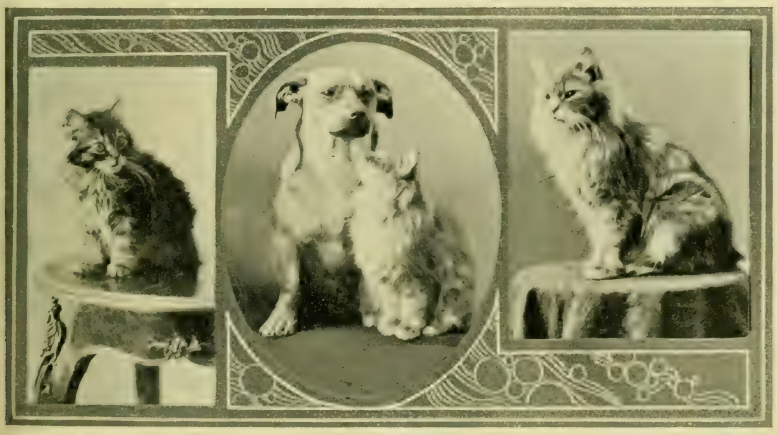
The mat cut and the picture in place, the whole may be held in position by a thin covering of opaque paper over the back, which may be pasted at the overlapping edges only. If the mat is of light weight, it is better to back it up with a piece of plain cardboard, to give stiffness. Glass may or may not be used, as the picture appears best with or without it. Rough papers show well under glass, while pictures with fine detail on smooth paper may look better without. If glass is used see that it is free from flaws. Old negatives, which have been cleaned with hot water and carbonate of soda, are good for this purpose.

The whole may now be bound on the edges with passe-partout binding, which comes ready gummed and in various harmonious colors, also in white and black. A neat job must be made of this, and an even width be shown on the glass all around.

Rings for hanging are provided by the little Dennison hangers, which come in two styles, one being passed through the plain backing and clamped down, the other being provided with a cloth loop or extension, which is simply stuck on the outside. This, of course, is only applicable to light pictures. Regular frames of wood should be provided with screw eyes.

Carbons on opal, or porcelain, or Seed's, or Carbutt's opal positives may be mounted on what is known as No. 90 stock mounting board, in rich, dark shades, and fastened at the corners by small brass bindings made for the purpose. A backing of plush or velvet stretched over a board also makes an effective mounting for this class of work.

By all means avoid anything loud or showy, as the correct and modern thing is quiet elegance. The elaborate frames and embossed and figured mounts are a thing of the past.

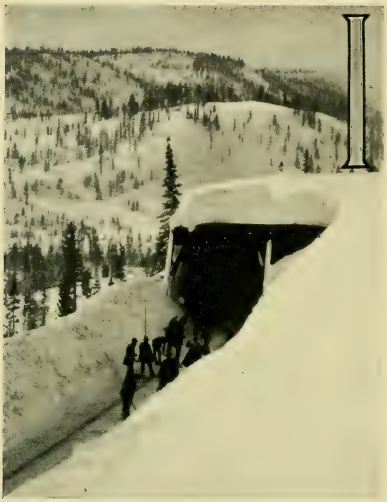


NEGATIVE BY TABER PRIZE WINNERS.

THROUGH THE SNOWSHEDS.

By W. G. Woods.

Illustrations by Howard C. Tibbitts.



ENTRANCE TO THE SHEDS.

IN CERTAIN seasons of the year the tourist who travels westward "over the hill," as the section of Central Pacific track between the California state line and the Sacramento Valley is known, has an opportunity of observing life as it seldom appears to the blase travelers of the East and the South. Much has been said and written of the snowsheds of the high Sierras, but to one who has not passed through them they must remain as their critics have described them, an invention for the destruction of the travelers' comfort.

If in the summer time, and the sheds appear to exist only to fill the car with cinders and smoke and to shut from the vision some choice views, wonder arises as to just what this heavily-timbered and solidly-braced building covering miles of the track is for. But if it be winter, and the flying flakes of snow begin to crowd into every dip and angle of Mother Earth, the wonder is not what they are for, but at the magnitude of the undertaking.

From Blue Canyon to a point miles beyond the summit of the Sierras, over a stretch of forty miles, the sheds are practically one continuous building, broken only at some heavy fill in the grade or by a steel bridge where a deep ravine is spanned in a dizzy leap. Winding over the mountains like a great snake, the road, ever climbing, is protected by this massive covering.

When the Central Pacific was first projected and the quartet of merchants, who were destined to become railroad kings, announced that they proposed to build a railroad over the Sierras where the snow often lay twenty feet deep, the idea was sneered at and dismissed from the minds of the knowing as impossible. But as they pushed their way foot by foot up through the grandest of mountain chains, the virgin forest attacked and the great pines yielding themselves up as a covering for the infant trail, the wiseacres ceased to scoff, and when the trains began to come and go, regardless of the howlings of the Storm King and drifting snow, the natives lost their sneers in admiration for the men who made the project possible.

In summer I have viewed the sheds from the back of an observation-car dropping down the hill with the fire flying from the brake shoes, secure in the knowledge of a steady hand on the air valve ahead, the gloom lightened by an occasional opening where a slender web of steel spanned some mountain

torrent or by an open panel through which fleeting glimpses were caught of the great pines, tops on a level with the track, or tantalizing, fragmentary views of distant lakes nestled like gems in their rocky settings, and as quickly shutting out from view all but the heavy, smoke-stained timbers and the polished rails slipping back into the shadow. So much have I been enamored with the fascination of the sheds that, in order to get better acquainted with them and to prolong the kinetoscopic views permitted in the regular manner, I have ridden through on a fractious bicycle, on which trip about all I dared look at was the little foot-wide track between; but the grandest way of all to see the sheds is from the head engine of a freight train on a moonlight night when the snow lies like a white drape, softening the rugged contour of the mountains and tipping the great pines with white until they look like giant Christmas trees strung with fairy feathers.

As the engine pounds its way up the hill, like a giant horse straining every muscle and trembling in every nerve, the fire-box is opened and a red glare flashes out and plays fantastically against the dark rafters, lighting up the fireman and his "hobo" coal-passer like demons feeding an uncanny, underground fire. Far ahead the straight beams of light from the headlight swings from side to side as the road curves in and out and the parallel line of rails, high-lighted where many wheels have polished the steel, stretch out into the blackness. Icicles hang from the roof like stalactites in a fairy cave, and far up the track a tiny point of light dances about as the ever-vigilant track-walker patrols the line.

As the summit is reached the grandest sight of all is disclosed. Looking

INTERIOR OF THE SHEDS.

THE WORK OF THE PLOW.

down over the white-clad hills and through the snow-tipped trees lies Donner Lake, like a sheet of polished steel in the weird, cold moonlight, bringing vividly to memory the fate of the little band of argonauts who made it their last camping ground years before a broad-roofed highway led over the Sierras.

Over the hill at last the tired fireman again claims his seat, the engineer grips the air lever and drops the heavy train gently down the other side. The openings grow more frequent. Around the great horseshoe curve, with only an occasional shed at the cuts, and we are in the clear country.

This forty-mile building requires constant care at all seasons, and many provisions are made for the safety of the many who daily pass through it. In the winter great avalanches of snow, immense boulders and uprooted trees sweep down the hills crushing the heavy timbers like reeds in a storm.

In the summer the great danger is from fire, and three fire trains are ever ready to rush to the relief at the first stroke of the alarm bell. On a high point north of Cisco stands a lonely watch tower from which almost the entire system may be seen. Here day and night sits a guard always on the watch for an unusual lingering of the smoke from one of the many trains or the red glow speaking eloquently of the work of a stray spark.

Bang! goes the alarm. Into the side track go the unfortunate passengers, and all is cleared for a dash down the mountains by the upper train or a hard, quick climb of the lower one.

The original cost of this intricate system of track protection was something enormous. Of the forty-two miles completely and partially covered there are

thirty-five miles of shed, costing about eight dollars per foot, or nearly a million and a half dollars. The annual cost of repairs is about fifty thousand dollars. This does not include the repairs rendered necessary by accidental sources, such as fires and snow slides.

One of the improvements recently installed with a view to avoiding heavy repair bills is a system of telescoping sheds which can be folded up in summer and opened out during winter. These sheds are constructed of steel and are mounted on wheels, so that they may be moved with ease. In summer the traveler may now catch a glimpse of the magnificent scenery in the high Sierras.

If the quartet of railroad builders who conceived and carried out this bold defiance of the elements had no other monuments to mark their life work the snowsheds alone would serve as a fitting memorial to their names.

A HEAVY CUT.

A BREAK IN THE SHEDS.

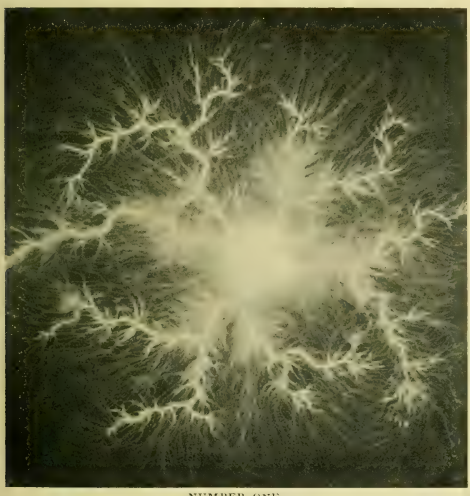
The photographs accompanying this article were made during one of the great blockades and give but a faint idea of the work required to clear the tracks for traffic after a big storm. The picture of the interior of the sheds shows the manner in which the drifting snow flies through the crevices and piles upon the tracks, requiring hours of labor to clear them.

The illustrations showing the snow-plows at work give some idea of the mountains of snow that cumber the roadbed. The old-time plow gave way, years ago, to the rotary machine that hurls tons of packed snow hundreds of feet through the air every minute. When the plow has bitten its way through a heavy drift, the clean walls on either side of the track resemble some smooth causeway sunk by giant hands in the mountain fastness. As one walks over this hard-won path, the immensity of Nature's handiwork grows upon him. Walls twenty and even thirty feet high cut from virgin snow, with never a mark to show their beginning or end, with nothing upon which the eye can rest, leave the mind of man in that bewildering state when he can do nothing but wonder. But back of him are men who have no time to dwell upon the poetical side of the blockade. The tracks are still covered, and a busy world impatiently awaits the news that the road is clear. Shovels begin to fly and black-garbed figures, silhouetted against the snowy background, the vapor steaming from their nostrils, shout as they eat their way deep into the layer of snow still on the track. These are the men who are working to smooth the way for the people of the far-off world, who flit by in luxurious palaces and shiver as they see the piles of snow which, but a few hours before, halted them on their way to home and comfort.

PHOTOGRAPHING ELECTRICAL SPARKS.

By A. J. Ruth, S. J.

The accompanying illustrations are pictures of electrical sparks, made at the Santa Clara College, without the use of a camera, and in the following manner: A sensitive plate was placed a short distance above a metal disc connected with one of the poles of a battery. Above the plate was suspended the point of a wire connected, after being passed through a coil, with the other pole of the battery.



NUMBER ONE.

By a mechanism in use at the college a single spark was allowed to pass from the point to the disc, and in doing so it struck the plate and affected it in the manner you see from the picture. Number One is taken with the spark passing from the point to the disc, and the other, Number Two, from the disc to the point. Number Three is a design made on a tin plate which was allowed to rest on the sensitive plate during the exposure.

These three pictures are a few of many beautiful designs worked out so far, and are among the most novel I have yet seen.

The delicacy and regularity of these designs has made the science of electrography one of the most interesting of the many experiments at the college, and the students are particularly anxious to divert what is now simply a form of amusement to some practical use. The connection of electricity with photography will undoubtedly prove an interesting feature in future experiments and Camera Craft will be kept fully advised as to the details.

NUMBER THREE.

NUMBER TWO.

At present the students are engaged in studying the laws governing the distribution of electricity and are gathering all relative data possible in this connection.

The first electrograph was made by Lord Armstrong but he did not show that the effect was electro-chemical and not photo-chemical. Professor Elmer Gates of the Chevy Chase laboratory has been conducting many experiments and has discovered new electrical principals in connection with meteorological phenomena. His work has in fact marked an epoch in that science. He has successfully demonstrated the fact that when a mass or region of air is electrostatically charged it increases in volume and then causes a low barometer. His researches will soon be published and are awaited with eagerness by all interested in the science.

Much has recently been written upon electrography, but little of practical knowledge has yet been gained.

NEGATIVE BY F. L. WATSON. COPYRIGHTED.

A CELEBRATION NIGHT.

DETAILS OF THE COMING SALON.

NAMES OF COMMITTEE MEMBERS AND RULES ADOPTED BY THE EXECUTIVE COMMITTEE.

With business-like precision the details of the coming salon at the Mark Hopkins Institute have been settled, and before another month has passed the photographers of the world will be impressed with the opportunities open to them in the first Pacific Coast exhibition.

All of the committees have been appointed, and those having charge of the preliminary arrangements are hard at work. At a meeting held during the month the following announcement was ordered:

"THE SAN FRANCISCO PHOTOGRAPHIC SALON, 1901.

"The Mark Hopkins Institute of Art announces that, with the joint management of the California Camera Club, an exhibition of photographic art will be held in the galleries of the Institute in San Francisco, California, opening Thursday, January 17, 1901, and continuing two weeks.

"The purpose of this salon is to bring together the best examples of the photographic work of the day, possessing the highest degree of artistic merit and pictorial interest.

"The Mark Hopkins Institute of Art will award a first and second certificate of merit in each of the following classes:

Class 1. Landscapes
Class 2. Marine
Class 3. Genre
Class 4. Portraiture
Class 5. Still Life
Class 6. Animal Studies
Class 7. Architecture and Interiors

as recommended by a jury appointed by the Board of Directors of the San Francisco Art Association.

"In addition to these awards CAMERA CRAFT of San Francisco offers a first and second medal in each of the different classes in accordance with the recommendations made by the aforesaid jury.

"RULES AND REGULATIONS.

"All pictures submitted for exhibition must be framed or matted under glass. They must also be addressed: "Photographic Salon, Mark Hopkins Institute of Art, San Francisco, California," forwarded at owner's risk, charges prepaid, and delivered at the Institute not later than January 1, 1901. Pictures to be returned at owner's expense. No charge will be made to exhibitors for space.

"The title, the exhibitor's name and address, and if for sale, the price must be upon the back of all pictures submitted. Nothing shall appear on the front of the picture except its title and the maker's name. Pictures exhibited must bear the name of the maker, and not the name of firms or galleries.

"If any pictures are sold while on exhibition ten per cent of the price will be deducted by the Institute.

"Every work for exhibition must be submitted to a duly elected jury for a decision as to its acceptance or rejection; the hanging and placing of all

accepted works will be under the exclusive control of this jury, and no changes will be made in the arrangement, nor can any work be withdrawn before the final closing of the exhibition.

"Each exhibition will be furnished with a catalogue, which will be the official notification of acceptance.

"The management will use all possible care to prevent, but will not be responsible for any loss or damage that may occur.

"All communications must be addressed to the Executive Committee of the San Francisco Photographic Salon, care of California Camera Club, 819 Market Street, San Francisco.

"Executive Committee,

"W. B. WEBSTER, Chairman
"ROBERT H. FLETCHER
"A. L. COOMBS
"W. J. STREET
"A. G. McFARLAND
"E. G. EISEN
"W. J. PLATT"

The following sub-committees have been appointed:

On Selection and Hanging,

A. J. TREAT, Chairman
OSCAR MAURER
H. B. HOSMER
W. J. STREET
CHARLES ALBERT ADAMS
*_____
*_____

On Publicity and Promotion,

W. E. PALMER, Chairman
W. A. SCOTT
CARL E. ACKERMAN

The management has decided that nothing other than the usual fee of twenty-five cents will be charged for admission to the salon. There will be one free day during the two weeks of the exhibition when the public will be admitted. All exhibitors will be entitled to free admission.

The catalogue to be issued by the Committee on Printing will undoubtedly be the finest piece of typography ever issued in San Francisco.

It has been planned by the management of the Institute to open the exhibition with a reception on Thursday night, January 17th, at which the members of the California Camera Club will be presented to the Directors of the Association.

* To be appointed by the Directors of the Mark Hopkins Institute.

ILLUSTRATED INTERVIEWS.

No. 1.

COLONEL I. W. TABER.

It is seldom that a man can be found who has passed his three score and ten, yet who will take sufficient interest in business affairs and the changes of modern times, to originate and place before the public a constantly recurring series of new ideas. Yet such a man is Colonel I. W. Taber, who is, perhaps, the pioneer photographer of the Pacific Coast. When I visited him, only a few days ago, I scarce had time to state my errand before he started to show me a new venture. Spreading before my eyes a dozen or more silhouettes modeled after the pictures of a century ago, he exclaimed:

COLONEL TABER IN '68.

"What do you think of them?"

I confessed that I thought that they were rather new.

"Well, I am going to make a spread on them," said he. "When I was in London I saw several street fakirs cutting out silhouettes from black paper with a pair of scissors. Remembering the quaint appearance of the old silhouettes we had along in the fifties, I went back to the gallery and the operator and myself went to work and made a few silhouettes. It was a simple undertaking, and for the benefit of any one who wishes a pointer as to how they were made, I will describe our operations. Placing the camera stand immediately in front of a large window, we stretched a large sheet in front of the source of light. I placed myself on a stool near the sheet, posed myself, the operator made a quick exposure and the work was finished.

AN ENGLISH VIEW

"I placed a few of the finished pictures on view, and in a short time silhouettes had become the fad in London. To make successful silhouettes a great deal depends upon the pose, as without this means of expression the picture will be valueless. There is but little difference between the silhouettes made today and those made fifty years ago."

In relating his experiences while in London, Mr. Taber gave a graphic account of the manner in which he photographed H. R. H., the Prince of Wales. Said he:

"It was simple enough while I was preparing to make the pictures, but for a short time before and during the time I was with the Prince, it was very trying. The picture was made at Marlborough House by a common window. Every photographer who tried to make a picture by this window failed. Shortly before the Prince made his appearance I attempted to affix a head-rest to one of the chairs. I gave it a quick turn and the rod broke short. Just then the Prince came in. I told him that an accident had happened, and he examined the rod saying, that we would do the best we could. However, I

H. R. H., THE PRINCE OF WALES.

managed to get a new one, and proceeded to work. The Prince was nervous, although jolly and pleasant. He had a cigar during the time I was getting him in focus, but he told me that as soon as I was ready he would take the cigar out of his mouth. I exposed six plates, and he moved on all except one. The successful picture he was very proud of, as it was the first one which he had had taken for some time that pleased him."

After a while I induced the veteran photographer to talk of himself.

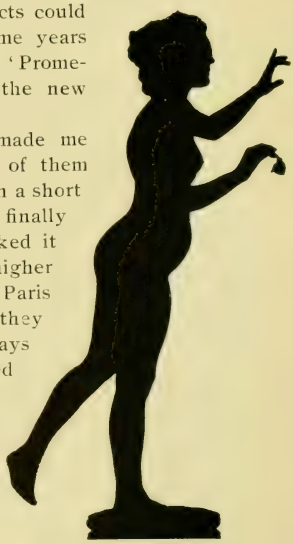
"I was born in Syracuse," said he, "seventy years ago. I started out to be a dentist, but it was rather a dull profession, and I never liked it. In the same building in which I was located was a photograph gallery. I used to go in

there at noon and experiment with the operator. At that time they were making ambertypes on glass. I liked the work so well that I gave up dentistry and went into it. For a while I worked in the East, making some of the first pictures that were made on plain paper. I think that those pictures were the best that I ever made. They were on plain silver paper with no shine whatever, and gave a beautiful effect of softness. In 1849 I sold out my business and came to San Francisco. I landed here on Washington's birthday and went right to work. At that time we got five, ten and fifteen dollars apiece for pictures. After staying here for some time I returned East, but came back in 1864, and started for myself on Montgomery Street.

COLONEL TABER IN 1900.

"About this time I originated the Rembrandt pictures, which subsequently became the rage. My first subject was a beautiful Spanish girl. Her face was in the shadow, while the expression was fine. I sent a print to *Wilson's Magazine*, which was at that time the only photographic publication. He printed it and gave me credit for the innovation. I was always experimenting and attempting to get new and novel effects. At one time I made a lot of marine pictures that were very successful. They were all taken in the gallery where I had a boat arranged so that the subjects could be posed. Afterwards the water was printed in. Some years later I put out a series of narrow panels, called the 'Promenade.' Before that all the pictures were wide, and the new picture caught on in great style.

"It was the raised picture or bas relief that made me known throughout the country. We made thousands of them for advertising purposes, and sold hundreds of dozens in a short time. I sent one of them to a friend in London, and he finally induced me to go over there and start a gallery. I liked it in London very well. Pictures there command a higher price, and both help and stock is cheaper. Where Paris panels are sold over there for twenty dollars a dozen, they sell for twelve dollars here. Over there we were always trying new papers, but I doubt if we ever obtained better results than on the old plain paper. But, of course, times have changed, and platinum paper is about the best we have now."



A PARISIAN SILHOUETTE.

And this is the way the Colonel views the world. Everything to him is viewed from a photographic perspective. Although he has a half-hundred employes, he still dabbles in the practical end of the work. During the afternoons he can always be found at his gallery ready to discuss the future and the past of the art, ever jovial and reminiscent, and withal ready to instruct the younger generation.

The Old Operator.

CAMERA CRAFT

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L. D. HICKS, Business Manager.

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VOL. I. SAN FRANCISCO, CALIFORNIA, OCTOBER, 1900 NO. 6.

THE SALON OFFICIALS

Much wisdom has been shown in the selection of the committees who will have the details of the coming salon in hand. The Executive Committee is composed of men who have been identified with enterprises of a similar character for years, men who are at the head of the business world, and who will stop at nothing where the interests of the exhibition are concerned. The prompt manner in which the committee has gone to work deserves hearty commendation, and CAMERA CRAFT does not hesitate to call attention to it at this time. If the same interest is shown by those from whom exhibits may be expected, the salon cannot but be a success. The liberal policy adopted by the committee in compiling the rules governing the exhibition leaves no possible avenue for criticism. The rigid lines of the Eastern exhibitions have been modified, mistakes corrected and every possible move has been made toward placing all exhibitors upon an equal footing.

The Board of Directors of the Mark Hopkins Institute are taking a keen interest in the salon, and are assisting heartily in the preliminary work. Captain Robert H. Fletcher, Curator of the Institute, upon whom the hard work will eventually fall, is making every preparation and will have everything in readiness for the reception of the pictures when they begin to come in.

The certificates of merit which will be awarded by the Institute to the winning exhibitors will be supplemented by handsome medals presented by CAMERA CRAFT.

See that the splendid reproduction of Curtis' "Why" accompanies your copy of this issue.

THE CONVENTION OF 1892

Although but little effort was made to bring the next Convention of the Photographers Association of America to San Francisco, the Convention almost decided to come. A few enthusiasts from Detroit, however, turned the tide, and the Convention of 1901 will be held in that city. We want the Convention of 1902. San Francisco, through natural and artificial advantages, is peculiarly adapted for

the name of the "Convention City," which she has well earned during the past few years. Preparations should be commenced early for a vigorous campaign at Detroit, and no avenue should be overlooked through which a favorable impression of California can be conveyed. We want the Convention, and we must have it.

OUR CHRISTMAS NUMBER

When the first issue of CAMERA CRAFT appeared on the news stands and in the supply stores it excited favorable comment, attended with frequent predictions of disaster to its managers. It was said that such an expensive publication could not last, and the frequent failures in the Western magazine field cited to prove the truth of this assertion.

Yet with this number CAMERA CRAFT rounds out its first volume, still in the field and with a subscription roll that almost doubles itself every month. It has grown from forty-four pages in May to eighty-six in October, and a further increase in size is contemplated. In its advertising pages the foremost advertisers of the world are found. The increase in size has had no effect upon the value of the contents, and each succeeding issue has been pronounced better than the preceding one.

The magazine is today the most costly publication west of Chicago, yet the limit has not been reached. The publishers have decided to make the Christmas number an issue that will eclipse anything hitherto attempted by a photographic publication. The bewildering array of material already on hand, together with articles and special illustrations now under preparation, will make the Christmas CAMERA CRAFT an issue to be prized. To its pages the foremost photographic writers of the world will contribute, and an especial effort will be made to convey to the reader some new idea associating photography with the joys of the holiday season. A Christmas story by a well-known author, superbly illustrated with photographs, will be one of the features. Especial attention will be paid to the illustrations, which will be of a nature befitting the season. Although the magazine will be doubled in size, no extra charge will be made, and the issue contemplated is so large that the publishers hope that everyone who desires a copy will be enabled to procure one.

The November CAMERA CRAFT will contain a new and complete set of big tree pictures taken especially for that issue and of a type far superior to any hitherto published.

A NEEDED IMPROVEMENT

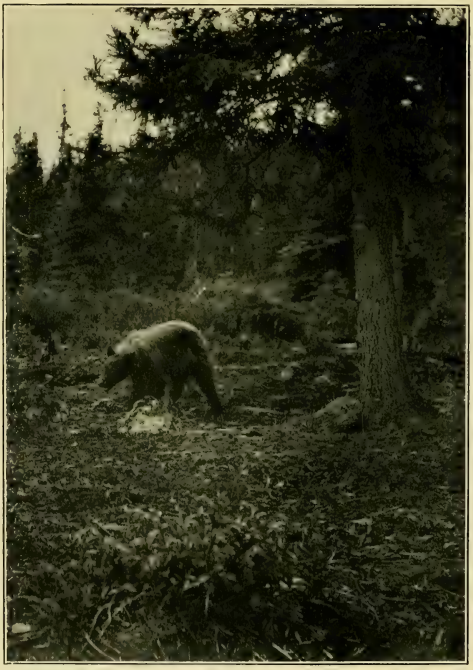
Why is it that the wants of the amateur photographers have been neglected by the Commissioners at Golden Gate Park? At present there are absolutely no facilities for the comfort and convenience of the great army of enthusiasts who invade the immense pleasure grounds. Often it is desirable to reload plate-holders or change films after a few hours, but to do this now is impossible. A simple, dark room should be established in some one of the numerous buildings at the Park, and the Commissioner who undertakes this improvement will be blessed by a small army of photographers.

A BACKWOODS CINNAMON.

PICTURE BY H. C. BARLEY, SKAGWAY.

HERE IS A STORY OF THE FAR NORTHERN PACIFIC COAST, A STORY WELL ILLUSTRATING THE LENGTHS TO WHICH AN ENTHUSIATIC PHOTOGRAPHER WILL GO TO SECURE A GOOD NEGATIVE. THE MAN WHO, WITH TRUSTY RIFLE, TRACKS A BACKWOODS CINNAMON BEAR UNTIL THE GAME IS LANDED, HAS MUCH TO BE PROUD OF, BUT THE MAN WHO CORNERS THE SAME UNCULTURED CITIZEN WITH NO OTHER WEAPON THAN A CAMERA, CAN WELL LAY CLAIM TO THE TITLE OF TRUE SPORTSMAN. THE ACCOMPANYING ILLUSTRATION WAS MADE FROM A PHOTOGRAPH TAKEN BY THE OFFICIAL PHOTOGRAPHER OF THE WHITE PASS & YUKON ROUTE, AT A RAILROAD CAMP BETWEEN WHITE HORSE AND CARIBOU. READ THE SIMPLE STORY OF HOW IT WAS DONE.—EDITOR.

For a long time I caught stray rumors of Bruin, and often wished that chance would throw him my way when I was prepared for him. One day he wandered into the railroad camp near Caribou and adopted the settlement as a stamping-ground. In a cautious way he gathered up the scraps thrown from the tables and began to make regular rounds. In a short time he began to lose his fear of the railroad men and every morning he came at the sound of the gong.



BRUIN.

It was then the train-men gave me an invitation to take a snap at their protege, and in a few days I went out to face him. At the sound of the gong he came out of the woods, gaping and stretching, and I pressed the bulb. As he came still closer I tried it again, and then, seeing the cool manner in which he took the proceedings, I determined that I would get as close as his majesty would allow. As I drew closer I began to think of eventualities and the vise-like grip of a cinnamon. Placing the camera gently in position, I threw the focusing cloth over my head, and began to rack the bellows. Somehow I couldn't get a line on Bruin, and stole a glance outside. Small wonder, the bear was at the foot of the tripod. However, he did no harm, and finally ambled into focus and took his medicine like a man. The result is shown.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

CURRENT PERIODICALS.

The Professional and Amateur Photographer — The September number contains some good things. E. W. Newcomb writes a lengthy article on the great value of backed plates in every class of work. In an unfinished article H. Sampson deals with the production of large from small negatives, a subject of increasing importance on which the last word has yet to be said. The reproduction of Professor O. W. Beck's lecture on "Lighting" to the Photographers' Association of America rounds out a useful number.

Anthony's Photographic Bulletin — The current issue deals largely with practical professional matters. "The Gold Toning Bath," "Copyright and the American Photographer," "Photographers and Their Public," reprinted from the *British Journal of Photography*, are interesting in this connection. The serial articles on "The Neck in Portraiture" and on the production of "Silver Prints Without Toning," are of considerable interest. Under the head of "Gleanings from Germany" it is stated that the intensity of a pyro-developed negative may be more than doubled by drying, redeveloping in pyro, and then heating.

Photo-American — Mr. McBean Johnstone continues his useful essay on "Landscape Photography" in the September number, and Mr. Curran gives two more illustrations under the head of "Lessons in Trimming." It seems to us that the examples are not well selected, for many would disagree as to the supposed improvement. Mr. Zerban writes a useful article for the novice on "Marine Photography." An excerpt from photography on the "Citrates as Restrainers" goes to show that there is no reason why they should displace the better known bromides. Mr. Osborne Yellott concludes his series of articles on "Lantern Slide Making."

The St. Louis and Canadian Photographer — Mr. Hanmer Croughton has a sensible article this month on the question of pure photography and the Chicago Salon. In general his criticism is sound and well deserved, although we are unable to agree with his censure of W. B. Dyer's "Fragment." Those who photograph interiors will be repaid by reading H. McBean Johnstone's article thereon. Some of the other articles are common to other journals and have already been referred to.

The Pacific Drug Review, while a technical and trade journal, is, like many other non-photographic periodicals, devoting some of its space to our science and art.

The Photographic Times — This number has one good thing, namely, an article by F. J. Clute on "Fogs and Stains in Negatives," in which is a little known and very valuable remedy for color stains, viz., a solution of three parts of bromine in a ten per cent aqueous solution of potassium bromide, with subsequent redevelopment of the negative. For the rest of the number little can be said. Mr. Staunton has a critical article on the "Genre Photographs at the Milwaukee Exhibition," doubtless of value to the man who has seen them, but quite useless to the general reader. The rest of the issue is, for the most part, devoted to excerpts from foreign sources, among which we note a very long diatribe by that most intolerant of self-sufficient dogmatists, Dr. P. H. Emerson. There are people who are presumptuous enough to believe that there are other photographic methods and media besides those approved of by the author of so-called "Naturalistic Photography," and the doctor accordingly tries to lash the men who outstripped him.

Photo-Beacon — The September number opens with a full reproduction of Dr. Emerson's article to which we have just referred. As the editor, in the May issue, indulged in a more foolish and intolerant article on his own account, the doctor's effusion was doubtless balm to his soul. Mr. J. A. Hodges continues his sensible and useful papers on "Artistic Landscape Photography," and in this number deals with the means of reducing contrast. Papers on "Intensification," on the "Making of Oval Guides for Mat Openings," and on "Flash Light Photography," are not without interest.

Photo Era — The most important article of the September issue is that of E. W. Newcomb on "Portraiture." He maintains that the portrait photographs of thirty years ago were better than those of today, and finds

the explanation in three factors — the latter-day adherence to a few stereotyped forms of lighting, the general use of thin negatives, so made to suit modern emulsion papers, and to the substitution of the coal tar developers for pyro, with a resulting loss in the printing quality of the negative. An illustrated article on "Photographing in the Canadian Rockies" is interesting reading. Mr. G. Ashby has an essay on "What Is Legitimate in Artistic Photography?" which, while containing a deserved protest against photographs that ape, without reason, an appearance of wash or brush work, is still without any basic principle on which to rest a judgment, and ends in nothing but a statement of the writer's limitations.

BY RUDOLPH EICKEMEYER, JR. THE LANE TO THE GREAT HOUSE.

Advance sheets of "Down South," a series of forty-eight pictures representing negro life in the South, made by Rudolph Eickemeyer, Jr., gives evidence of a new and broader field for the photographer. The pictures are printed on heavy wood-cut paper and accurately render the values of the originals, which are full of the romance of darky life. A short preface written by Joel Chandler Harris serves as a fitting introduction to one of the most interesting series of pictures of the day. (R. H. Russel & Co., $1.50.)

THE FOREIGN JOURNALS.

Le Photogramme for August is still occupied with the Paris Exposition, and a "Professional Photographer" gives his views on the amateur exhibits. He admits and declares the lifeless conventionalism of the work of his brother professionals, but charges the amateurs with attempting more than they can perform, overshooting the mark in everything. "To sum up with them, as with the professsonal, the result is feeble. If the first have sinned by excess of method, the second have sinned by extravagance." The rest of the number is made up of excerpts from foreign journals.

Der Amateur Photograph—The leading article is by E. Blech Danzig, who describes and extols "Tank Development." Dr. Hans Harting concludes an article on a new portrait lens, a Voigtlaender, that, at 4:30 on a February afternoon, gave a fully exposed gallery picture in a tenth of a second. Finally, there is a short paper on the "Toxic Effect of Developers," which the writer attributes largely to the associated alkali.

Gaedicke's Wochenblatt—Little of interest to American readers is found in the last issue, it being chiefly devoted to criticism of European exhibition pictures.

The picture of "Bruin," on page 346, is reproduced through the courtesy of the Seattle *Post-Intelligencer*.

R. H. Furman's carbon prints have been attracting much attention in Europe.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

MAKING PORTRAITS.

Although it seems easy to make a portrait, there is nothing more difficult, for the first thing to be borne in mind is that you must represent a person with his proper character and as he appears every day to his friends.

Avoid, if possible, making full-length photos of a man. Our apparel is inartistic and every line angular. Full-length pictures of ladies are easier made. If the body be turned a little and the head placed in another direction, a pose with animation will be secured. There is great variety to be obtained from this pose as a beginning.

As to expression, the best way to obtain what is to be desired is to take the expression yourself. Man is an imitative animal, and sorrow or joy is contagious.

All subjects cannot be lighted the same. For example, a child's face should be brightly lighted, with soft, well graduated shadows; that of a man requires more contrast of light and shade, and the stronger the character in the face the stronger lighting it will stand. One should avoid falling into exaggeration in the treatment of light, "a la Rembrandt," for it is the most difficult of all methods. Black and white patches are not Rembrandts, for, while it was the great master's method to place the brightest light against the darkest shadow, yet every shadow is transparent and has its half shades. Again, there is nothing in a face which is entirely white.

In a portrait there must be one light only illuminating the entire picture, although it is no uncommon thing to see professional work with interior and landscape grounds lighted from one direction and the portrait from the other. This is an inexcusable absurdity.

The light must fall from top, side and front. It is not necessary that there be direct light from all three sources, for by the use of tracing cloth, which makes an excellent reflector, one can rig up two or three screens so that they may be adjusted by pulleys and string from the ceiling and work with a side light only. The color of tracing cloth, being slightly blue, seems to give more actinic power to the reflected light than does plain white cloth.

A top light only makes the wrinkles too pronounced and the eyes appear sunken and without expression. Also, a pure side light is objectionable, for the reason that the modeling is lost and the form of the features exaggerated. Both the lighted and shadow sides of the face are flat and all resemblance gone. It follows from the foregoing that a direct top-side light is requisite, with reflectors on the opposite side to soften the shadows. This is the ground principle, and is subject to as many modifications as the subject may require or the photographer's fancy dictate.

Suppose one is using only a single window with a roller curtain from the top; the first requisite is to soften the direct light by covering the window with tracing cloth or with plain starch paste, which may be easily removed. Top-front light can be obtained by stretching two widths of tracing cloth from the top of the window casing to the ceiling, about five feet away and down at an angle of about forty-five degrees, to within six feet of the floor. A little trouble and a few strings will accomplish this. For a side reflector, throw a sheet over a clothes horse.

The nearer opposite the window you seat your subject the stronger the side light, and the farther back the more will be the front-top light. A round face requires more side light and little front light; a thin face should have more top and front light. You will notice that the top light may be regulated by pulling down the window curtain a foot or two.

The so-called Rembrandt effect in profile is obtained by placing the subject in front of the source of light, in such a position that the camera points almost at the light which falls over the shoulders and lights up the profile. In this lighting the reflector must be used judiciously or the face will lack roundness.

A three-quarter portrait is always the easiest and really the most pleasing. It should generally be made with the head turned away from the light, for, if turned toward it, there is apt to be too much front light, making the face appear flat and causing a bad

Continued under Professional Fields.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

MAKING PORTRAITS (CONTINUED).

(This article is continued under the Professional head because there are a few points contained in it from which the Professional might profit.)

light in the eyes. In an elaborate studio this defect can, of course, be remedied.

A profile can be lighted nicely by bringing the subject opposite a window, turning the head partly away and placing the camera nearer the window side. This allows a portion of the light to fall back of the figure and the relief is good.

One rule must be strictly followed, and that is, to light the eyes from one side only, and that on the side from which the light comes, carefully avoiding any secondary light from the other side, for in this way only will the eyes have light and animation. It is well to study the works of the old masters, to see how the position of the eyes will portray love or hatred, joy or sorrow.

If the sight be directed into the lens the result will be one of those pictures with eyes that seem to follow you all over the room. Let your sitter blink the eyes naturally during the time of exposure, which should be of sufficient duration to obtain detail in the shadows, letting the high lights take care of themselves.

Lastly, the developer should be a soft or diluted one, not too rich in the active agent. The use of a weak developer takes a longer time, but allows the shadows to build up without making the high lights too chalky.

CARE OF LENSES.

The other day I noticed a fine lens in one of the stock houses, standing where the hot sun could pour on it all day long. This might have been the result of ignorance, but, more probably, carelessness. However, it furnishes me with a text for a short sermon, the meat of which is gathered from my own experience and the advice of others.

Lenses should never be left in a warm temperature, either fire or sun; neither should they be allowed to become so cold that, when used in a damp atmosphere, moisture will congeal upon their surface. In these days of high-grade lenses, too much care cannot be exercised in keeping the instrument in as even a temperature as possible. If the making of good portraits depends so very much on the lens, why is it that it is the most abused article in a gallery?

Dust and dampness will in time impair the perfect polish of any lens, and then the owner wonders why it works so slow.

Never use chamois, flannel, or paper to clean a lens. They are almost certain to contain grit. A clean handkerchief is the best, but never rub the glass hard, even with this. A speck or bubble in a lens is of far less importance than a film of fine dust or an invisible imperfection of polish.

In screwing together a lens in its mountings or its flange, turn the lens first the wrong way until it snaps in the thread, and then reverse.

The inside of the camera must be kept absolutely clear of dust and perfectly black, without a suggestion of shine. Ladies' shoe polish, mixed with a little lampblack, is good for this purpose, but must be applied lightly to avoid shine.

Isn't it a peculiar thing that while dressmakers can make people put humps on their shoulders or anywhere else, the photographer, with the same subjects, has no power to change any fashion until the people get ready for it. Why cannot some one invent some NEW style, and by their individuality, and perhaps imagination, make the people take them? Probably it is a lack of cohesion among photographers, coupled with the known fact that anybody will take anything if everybody else does the same. However, I understand that in Paris and London some of the best-known galleries, whose showcases have for years been filled with black-and-white prints, are now making a specialty of the good old albumen print. I suppose they find that there is a new generation constantly growing up and demanding new things.

Fanny D. Janes — The effect on the print sent us was no doubt caused by halation, commonly called a "ghost," in the lens, caused by the strong light immediately back of the lady's head. If the background were heavier this would not happen.

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

PLATINUM PAPER FOR PROFESSIONALS

It is often argued that platinum paper is more expensive than the ordinary mat collodium papers. As far as the first cost of the paper is concerned, this is true, but it goes no farther than that, for, with equally intelligent manipulation in the case of both papers, it will be found that the photographer is actually money in pocket by using the platinum process. The simplicity, quickness and directness of platinum printing, to say nothing of its beauty or permanency, is a delight to the professional or amateur worker who becomes thoroughly familiar with it. In the saving of time it is a wonder. It prints, develops, fixes and washes in one-fifth of the time required for collodium mat paper, and you save more than half the time mounting them.

The cost of the expensive gold and platinum solutions is saved and results secured which are far more artistic and enable the professionals to secure much better prices for their work.

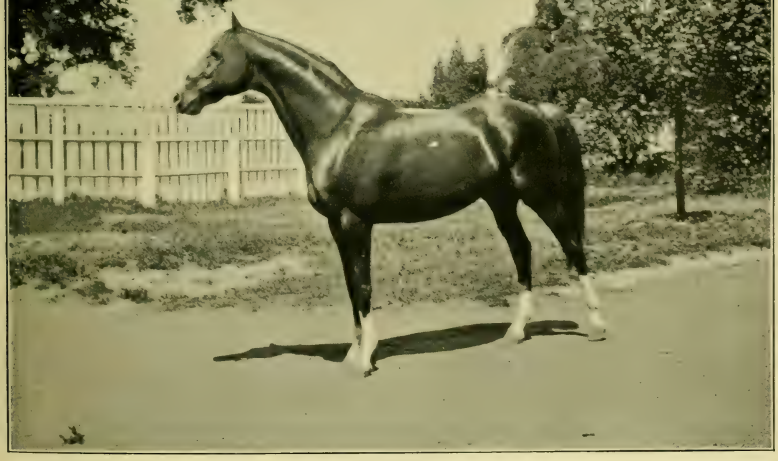
But figure it out for yourself — gross for gross, add the gold and platinum and extra time on the side of the collodium paper, and I am convinced that you will admit with me that platinum prints cost no more to produce than prints by the old method.

An interesting letter of recent date, from a prominent eastern photographer, says that the exclusive use, in his gallery, of Platinum paper has been marked with the most pronounced success.

Says he: "Our pictures are more artistic. The work is cleaner and less of it. We get better prices, do more business, and the work costs no more to produce than formerly, counting time as an item of expense."

REPRODUCTION OF NEGATIVES

The satisfactory duplication of negatives is a question that often presents itself to the photographer. As a rule, prints from reproduced negatives show a decided tendency to flatness and lack of brilliancy, the high lights of the original are depreciated and the delicate half-tones lost.



NEGATIVE BY W. G WOODS

SALVATOR.

When the reproductions are reduced in size it is an easy matter to obtain duplicate negatives possessing all the good qualities of the original, and but little of the sharpness or brilliancy is lost; but it is another matter when it is found necessary to enlarge; then the photographer begins to experience difficulties, particularly if the enlargement is to be more than doubled in size.

It is, of course, essential to have a good negative to begin with. One possessing good definition and not too dense or contrasty, such a one as can be secured by a full exposure and normal development. For a positive, the use of a medium slow plate is advised, such, for example, as Cramer's Banner or Seed's 26, fully exposed and developed with a soft-working developer to secure all the detail of the original. Do not use transparency plates, as they work too contrasty.

For the enlarged negative, I use a non-halation plate and give all the exposure the plate will stand, beginning development with a moderately weak, soft-working developer for detail, and finishing with a strong, one-solution hydrochinon developer, strong in bromide, for density.

Reproduced negatives lacking in density are worthless and will never give satisfactory prints, and under-exposures are equally bad, and had better be thrown away and another exposure made.

My method of making enlarged negatives is to accomplish the result in two steps. If the original negative is 4 x 5 and I wish to make an 8 x 10 enlarged negative, I make my positive 5 x 7 in size, and from this positive the 8 x 10 enlarged negative. Use a glass to focus with. This method gives me better gradation and shows less grain.

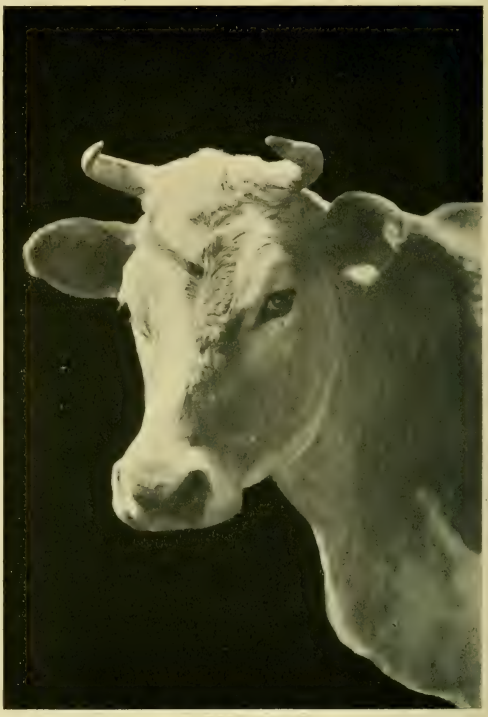
VELOX IN HOT WEATHER.

Considerable complaint has been made lately by Velox workers that the paper stains easily and does not give clear whites. The remedy for this is more bromide in the developer.

There can be no ironclad rule laid down as to the exact quantity to be used, the amount necessary being governed by the class of paper used, the kind of negative printed from and the characteristics of various emulsions of the same class of paper.

EQUIVALENT FOCUS

The following is a simple method of ascertaining the equivalent focus of a lens: Set up the camera and screw in the lens. See that the back and front are parallel, and that the back is vertical. Focus



A THOROUGHBRED.

the image of an object (so far distant that all beyond is perfectly sharp) in the center of the screen. Mark the position (extension) of the back on the baseboard. Now set up a foot rule and then focus an image of this in the center of the screen. Make the image three inches long (one-fourth size of the original). The back will have been racked out further than in the first case. Again, mark the position of the back on the baseboard. Now measure the distance between the two marks. This distance, multiplied by four, gives the focal length of the lens.

One worker will say he finds three or four drops sufficient and often uses none, while the next man requires twice as much to keep the high lights clear. The reason for this is often in the light the paper was handled in, the first man using a dim white light or an orange or ruby light, while the other manipulated his paper in more or less white light while developing.

If fogging occurs with the normal amount of bromide in the developer add more restrainer, drop by drop, until the result is satisfactory.

Remember that paper manipulated in white light requires more bromide to keep high lights clear than if worked in lamp or gas light. Old paper requires more bromide than fresh, but yields as good prints when the proper amount has been used; in fact, the writer used Velox paper over two years old with most excellent results after having added about twenty-five drops of a ten-per-cent bromide solution to one M. Q. tube, making four ounces of developer, and this without causing the objectionable green tones.

GREEN TONES ON BROMIDE

Now that green oak is in vogue in framing, some amateurs might be interested to know that they may obtain green-tinted bromide prints at small trouble. A contributor to a foreign contemporary recommends the following, says the *British Amateur*: Immerse for a minute in potassium ferrocyanide, thirty grains; water, two ounces. Remove and wash for five minutes in iron sulphate, twenty grains; water, two ounces. When deep blue, remove and thoroughly wash. Then immerse in sodium chromate, ten grains, water, two ounces, and again wash thoroughly, when the desired green tone will be obtained.

*DEVELOPERS.

ORTOL

Considered one of the most satisfactory of the newer developers. It works clearly and gives vigorous density. It is very sensitive to bromide of potassium, and may be used repeatedly. The negatives show fine brownish black grain. The image appears normally in about twenty seconds, and is completely developed in four to five minutes. It is most suitable for development of contact prints and enlargements on bromide paper, giving beautiful, clear tones from gray to deep black, according to the exposure and concentration.

METACARBOL

An American product, and an energetic reducing agent, used in combination with weak solutions of caustic alkalies. Its characteristics are the great rapidity with which the image appears and the softness of effect. Like metol, however, it is slow in giving density. It works entirely without fog, and is most excellent for instantaneous exposures.

TOLIDOL

A comparatively new developer, of American manufacture, and which is rapidly taking front rank. Extremely simple in manipulation, it works equally well for negatives, transparencies or Bromide papers. With carbonate of potash it yields clearer and more vigorous negatives than with carbonate of soda. The addition of a few drops of ten per cent solution bromide of potassium is essential.

GLYCIN

Should be classed among the slow-working developers, and is remarkable for the absolute clearness and the fine grain of its deposit. With this reducing agent any desired density can be secured, and it possesses greater latitude in exposure than any other developer on the market. On account of its slowness of action and great latitude it is the ideal developer for "stand development," the resulting negatives showing a most beautiful texture of a rich brown-black color, with good range of gradation and clear shadows. For lantern slides and photo-micrography it cannot be surpassed.

AMIDOL

Better adapted for lantern slides and Bromide paper than for negatives. It works clear and without fog, with great vigor and brilliancy, but possesses very little latitude in exposure. It forms a complete developer with sulphite of soda only, and does not require the addition of a caustic or carbonated alkali.

HYDROQUINONE

Gives clear, brilliant and contrasty negatives. Considerably slower than pyro or metol, it should be avoided in instantaneous photography, but is most excellent for fully-timed or over-exposures. It is extremely sensitive to bromide of potassium and over-exposed plates that would be hopelessly lost if developed with other developers can be saved by a strong bromo-hydroquinone developer. It works admirable in conjunction with several of the soft-working developers — for example eikonogen, metol or metacarbol.

*Concluded from September.

EIKONOGEN

One of the best of the soft-working developers and a great favorite with the professional photographer. It gives great detail and softness even with under-exposures, but it is difficult to secure the necessary brilliancy and density. It is now used almost altogether with a density-giving agent, such as hydroquinone, which gives the snap and contrast eikonogen alone does not possess. Carbonate of potash is the alkali generally used.

METOL

A very popular developer, working equally well with either carbonate of potash or soda. The image flashes up rapidly with all its detail, but gains density rather slowly. Metol solutions have the effect of hardening the film, so that a longer time is required for fixing. A little bromide should always be used t. control the rapidity of the developer. Used together with hydroquinone it makes a most excellent all-round developer, adaptable to both plates and paper.

RODINAL

A liquid, one solution developer requiring only the addition of water for use. Gives great detail, but lacks in contrast and density. Negatives lose strength in the fixing bath, and development should not be stopped until sufficient density has been secured to allow for this.

KACHIN

Obtainable only in Great Britain, is probably only a modified form of pyrocatechin, and similarly permits of the addition of hypo-soda to effect simultaneous development and fixing.

LATER DEVELOPERS

Of the later developers a mere mention must suffice. They are as yet too new to have proved their value. In fact, some of them cannot be procured in this country at present. The most recent are:

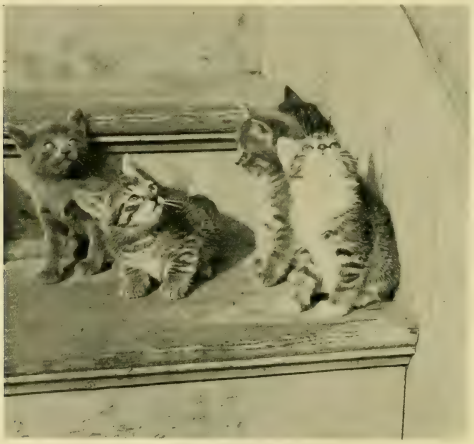
Imogen, a patented reducer, which makes an energetic developer with the carbonate alkalies. It has a strong similarity to metol.

Diogen is also a patented developer, possessing great latitude, slow in action, but yielding sparkling negatives of good density and color.

Hydramine is slow in action, and being extremely sensitive to bromide allows great latitude in exposures. It works in combination with the caustic alkalies and develops progressively, giving strong, brilliant negatives free from fog or veil.

Diamido Resorcin is, perhaps, the latest developer in the market, closely analogous to amidol; it does not seem to possess any advantages over it.

It is impossible, within the limits of a magazine article, to more than touch upon this subject, the fundamental principles of which are undoubtedly less understood than any other branch of photography. To those who have taken up the art in earnest I would strongly advise the reading of such books on the subject as "Modern Developers and How to Use Them," by E. Ardron; "Developers, Their Use and Abuse," by Richard Penlake, and the excellent little *Photo Miniature* handbook on "Developers and Developing."



WATCHING FOR FLIES.

"PRINCE."

NEGATIVE BY TABER.

OUR MONTHLY PORTRAIT.

STUDY THE LIGHTING AND POSING EFFECTS.

FAULTS IN LANDSCAPE PHOTOGRAPHY.

By G. A. Konigsburg.

NEGATIVE BY KEMP.

THE glancing over of the illustrated magazines reveals the fact that pictures dealing with landscapes far outnumber those devoted to all other subjects, portraits, animal and genre studies. This is according to the nature of things, since it is easier to make a fairly good landscape, than one of the other mentioned subjects. Above all other styles, landscapes, dealing with water and clouds, predominate. These ever possess a charm and attraction, particularly so when taken against the light, with a sun hidden beneath clouds. In such representations we see one failing in particular that to the artist's eye is immediately apparent.

The landscape artist seeks to awaken in the observer the sense of distance. For this purpose he has the most varied means, aerial perspective, color, etc. To the artist working in monochrome this power of color is denied, yet there remains to him the power of varying the depth of tone to separate foreground, mid and far distance. The brush-worker, according to feeling or desire, finds it easy to vary and distribute the desired values. But the art-photographer usually suffers shipwreck owing to the difficulty (inherent limitations) of his apparatus. Let us take the following proposition:

A harbor with incoming shipping, and clouds, one ship following the other. Let us suppose that there are three ships, one in the foreground, one some hundreds of yards behind, and the third a similar distance behind the second. Now it lies in the nature of air and light that the nearest ship will exhibit the deepest shadow tones, that the tones of the second will be clearer and lighter, and those of the third will be quite flat. But the camera, and finally the positive scarcely show these differences at all. The values are washed out, almost equalized. The last ship in the distance exhibits the same values as that in the foreground, producing an absolutely inartistic effect.

If we examine landscapes and seascapes in reference to this failing we shall find these assertions verified. If the photographer was trained in art he would seek to correct this fault by dodging. Workers in gum-bichromate can easily develop the natural values by a touch of the brush.

It is hard to believe how much a picture gains when this rule of relative values is carried out. While a picture worked in the old way entirely fails to impress the beholder, a picture in true values does so at once by its artistic and natural effect. The experiment of printing from the same negative by both methods will convince the reader of the truth of these remarks. — (Translated from *Gaedicke's Photographisches Wochenblatt.*)

THE SUN'S DECLINING.

By Elwyn Irving Hoffman.

Oft have I watched the sun depart,
  Aye, watched with secret fretting,
Because I could not dare to hold
  The beauty of its setting.

But now — oh, blessed be the art!
  No more my soul's repining;
This eve my camera made me bold —
  I stayed the sun's declining.

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The most interesting demonstration given this year occurred on September 18th, when Professor R. W. Wood, of the University of Wisconsin, discussed "The Photography of Sound Waves" and "The Diffraction Process of Color Photography." Those who missed the demonstration have much to regret.

On the twenty-second Mr. Will Lussier of the Cramer Company, entertained a large number of members under the skylight, giving instruction upon lighting methods and posing.

An unusually fine collection of Alaskan views were exhibited at the last regular meeting of the club. The business meeting was short and the lantern came into play in short order. A number of moving pictures were also exhibited.

The regular monthly meeting of the California Camera Club will be held in the clubrooms, Academy of Science Building, Tuesday evening, October 2d, at eight o'clock.

Following the meeting a demonstration on "Composition in Photography" will be given before the club by Mr. Charles P. Neilson, instructor in art in the public schools of Alameda. Mr. Neilson is well known as a successful artist with both the pen and brush. The committee requests a full attendance, as the subject is of exceptional interest and will be fully illustrated by examples.

Outing Committee—W. J. Street, H. B. Hosmer and J. W. Finigan.

An outing in Golden Gate Park has been called by the Outing Committee, the date being October 7th. In the notice the committee says: "The Park possesses more photographic opportunities in landscape, marine and genre work than most of the club members are aware of. * * * More work should be done there."

The club members will meet at Stanyan and Haight Streets at 8:30 A. M. for the outing.

SAN DIEGO CLUB.

With one exception, this month has been an unusually quiet one for the club, as many members are away on vacations and the regular outing trips have been postponed.

The one exception was the happy advent among us of about twenty-five lively members of the Los Angeles Camera Club, who spent several days at Coronado and San Diego. Their jovial faces and pleasant companionship will not be forgotten soon, and their jolly club yell will ring in the memories of the local society for a long time to come.

The beautiful sunsets and cloud effects are offering rare opportunities for lovers of artistic photography, and not a few are taking advantage of the chance to get some fine negatives.

SKAGWAY CAMERA CLUB.

The Skagway Club has at last made its trip to Chilkoot Summit, and thereby proved its hardihood and daring. This trip is probably the most interesting ever taken by a similar organization, and will go down in the history of the club as its most successful outing. The party left on Wednesday, and that day reached Sheep Camp. The next day the summit was reached, and the trip to Dyea was made on the same day. Friday morning the return was made to the city. The day spent on the summit was perhaps the finest of the year and many excellent exposures were made.

The house-warming given recently by the Santa Monica Club, in their cosy quarters in the Hoy Block, was a most successful occasion. Many artistic photographs adorned the walls, and an evening of music and song was enjoyed. Light refreshments were served.

The Los Angeles Club is now in its new home and ready to receive visitors.

Mr. Will Lussier, of the Cramer Dry Plate Company, has removed his office from 120 Sutter Street to the Academy of Science Building.

A NEW METHOD OF COLOR PHOTOGRAPHY.

By M. A. Graby.

I have the honor of presenting to you a new and simple method of color photography, so easy that it is open to all the world, even to children. While accepting the color method of M. M. Cros et Ducos de Hauron as a valuable discovery, I have never used it, considering it too costly and complicated on account of its many operations, particularly the development of the proofs, which is thus not open to all.

In studying the direct p' otography of colors on subchloride of silver paper, and on bichromate I observed that I sometimes obtained proofs presenting the colors with sufficient exactness, whence I drew this theoretical conclusion:

Since by the union of two colors, viz., the violet of the subchloride of silver and the orange of bichromate one can obtain the sum of all the tints, it ought to be possible by printing on blue paper the blue-violet of a picture, and on orange paper the orange red, and then superimposing the prints, be it really one on the other, or virtually by the stereoscope, to obtain an integral image in color of the picture so reproduced. And this, experience has confirmed.

Here in a few words is the manner of operating:

On an Isochromatic plate sensitized for the orange rays, a picture is taken, behind an orange screen, of all that the subject contains of orange red. Then behind a blue screen on a plate sensitized for the green rays, a picture is taken containing all the green and blue of the subject.

One can employ a stereoscopic camera and take the two pictures together, whereby relief will be gained. The first negative is printed on ferro-type paper whence is obtained a blue positive. The second negative is printed on chloride of silver paper, fixed in hypo and washed, whence is obtained a yellow-brown positive.

There remains but to mount the prints in the usual way, and examine by the stereoscope. The first moment I saw little of the colors, and ended by comprehending that each proof ought to be cleared by a screen somewhat like unto that first used. Thus in placing the blood-red screen before the blue proof, and a blue screen before the orange print, all the colors are well seen. More relief is obtained by employing a stereoscope, and the perspective gives an absolute sense of reality. It is remarkable that metallic tints are distinguishable, and that gilding, for example, appears not only as yellow, as one might believe, but as veritable gold.

My process has the following advantages:

Only two negatives to make.

Two papers of easy employment.

Relief if a stereoscopic camera be used.

But this is not all that my method gives. We can, by superimposing the prints, obtain an image in perfect colors, in which case one of the prints must be transparent.

My stereoscopic prints are naturally more difficult to view than ordinary stereoscopic prints, because it is necessary that the eye blend the colors; moreover, it is rare that the two eyes have the same power, of which I have taken note in showing my prints to several persons of whom some saw the red the better, and others the blue. It is necessary to look steadily for a time, and I prefer to examine them in a feeble light.

If on looking at the prints the orange predominates it is necessary to add a blue glass; if, on the contrary, it appears blue, a red glass should be used. Being accustomed to it, it is only necessary for me to close the left eye whilst I commence looking with the right, and then on opening the left eye I see the pictures in color very well.

The superimposed prints are easier to see. They are not yet perfection, but I pray you to take note that this is only an announcement of my method, and that I have not plates sensible to the green rays, which modifies the result.—(Translated from the *Bulletin Association Belge de Photographic.*)

PRIZE WINNERS.

The following Pacific Coast photo supply dealers have been awarded prizes in the Eastman Kodak advertising contest: Class A, first prize, Woodard, Clark & Co., Portland; Class A, fourth prize, Fred E. Munsey & Co., Los Angeles; Class B, eighth prize, Newbro Drug Co., Butte, Mont.; Class C, fourth prize, Collins & Co., New Whatcom, Wash; Class C, fifth prize, White & Gabel, Chehalis, Wash.; Class C, seventh prize, C. P. Magagnos, Alameda, Cal.; and Class C, tenth prize, Churchill & Wooley, Roseburg, Cal.

NOTES.

The exhibit of the Eastman Kodak Company at the Paris Exposition was awarded the Grand Prix, the highest honor obtainable.

Mr. F. C. Dando, the proprietor of the Lamson studio of Los Angeles, called on a number of his friends in this city during the celebration.

Mr. W. O. Chase, well known to many kamaainas of the Hawaiian Islands as one of the pioneer photographers of the islands, is seriously ill in Wailuku.

Among the well-known photographers who called this month are Mr. W. Kleckner, the popular manager of Mr. Marceau's studio in Los Angeles, and his chief assistant, Mr. Sam Hill.

Fred Bushnell, the special photographic representative of the *Examiner* at the Paris fair, has returned with loads of new stories, negatives and admiration for the glories of "Home, Sweet Home."

Another new lens of the Anastigmat type is to be introduced by Mayer & Co., of Gorlitz, called the Aristostigmat. It will consist of two uncemented combinations, and will be similar to the Planar and Unar lenses.

Mr. W. H. Hartter, who dispenses photographic material in the *Examiner* building, has been much worried by a persistent rumor to the effect that he is retiring from business. He wishes CAMERA CRAFT to correct this impression, and desires assurance made that he is still in the ring.

Mr. James Dewey, of Dewey Bros., Los Angeles, attended the recent Native Sons' celebration in San Francisco. Mr. Dewey is one of the best-known jobbers in the South, and upon the occasion of his visit to CAMERA CRAFT assured us that he enjoyed his well-earned vacation hugely.

Mr. J. B. Holman, representing the Rochester Optical and Camera Company, spent several interesting days in San Francisco during the recent celebration. He saw the city at its liveliest and carries back with him an impression of California hospitality and cosmopolitan environments that will linger for some time in his memory. Mr. Holman made many friends on the Pacific Coast, and the dealers all hope to see him again.

The photographers of Washington, Idaho and Oregon will hold a convention at Portland, Or., October 25th, 26th and 27th, for the purpose of forming an association embracing the territory represented. The organization will be known as the Pacific and Northwestern Photographers' Association. The officers of the association for temporary purposes are: F. G. Abel, President; John W. Tolman, Treasurer, and Charles Butterworth, Secretary.

Mr. George Steckel and F. G. Schumacher, of Los Angeles, spent several days in San Francisco on their way home from the National Convention last month. Both gentlemen return firmly convinced that the next convention can be induced to select San Francisco as the meeting place for 1902. CAMERA CRAFT is assured by them that nothing is needed but a strong representation of Coast photographers who will talk about the beauties of California. The rest has been done.

Messrs. Folmer, Schwing & Co., manufacturers of the Graphic, recently made to order for Mr. R. P. Burr, of Sacramento, one of the finest cameras ever shown on this coast. It is a reversible back Graphic special, 6.2 x 8.2, fitted with a Zeiss 7*a* No. 17 lens, diaphragm shutter, and with a Zeiss series 5, wide angle, interchangeable lens in the same shutter. Various other extras are provided, and the camera is a beautiful piece of work, costing, with holders and cases, over three hundred dollars.

PATENTS.

Rudolph M. Hunter, Philadelphia, method of supplying a suitable background for figure work.

In this unique method the subject is posed in front of a black background and lit from the front. The proper exposure is made and the black background rolled up, which discloses a transparent screen, upon which is projected, by a stereopticon, the background desired. The front lights are dimmed, and a second exposure made for the background.

Charles A. Wiley, Miles City, Mont., compact film camera.

A. Lege and W. H. England, London, camera for color photography.

ART NOTES.

A permanent exhibition of pictures has been established by the management of the Oakland Free Library. All of the pictures are by local artists and are changed frequently.

William Morris announces that his water-color exhibition will be ready about October 15th. The work of many foreign artists will be shown, Italy Spain and Algiers being represented. A number of Remington's latest sketches will be one of the principal attractions, and the work of the local contingent will be elaborate.

The sale of the paintings of the late Raymond D. Yelland, which began at the Mark Hopkins Institute of Art on September 20th, was most successful.

The fall exhibition of work by local artists will be held at the Institute in November.

The September number of the *Mark Hopkins Institute Review of Art* contains many good things, among them being an illustrated article on "The City's New Fountains" and an interesting chapter of gossip anent the "Doings of Local Artists," which cannot but be of interest to all who read it. The magazine is edited by Captain Robert Howe Fletcher, Curator of the Institute. (Quarterly, 25 cents a copy.)

PORTABLE NOVELTIES.

This is an age of portable conveniences, in which a man is able to carry with him, in condensed form, his house, his boat, his food supplies for a long period, or what not. Even steamboats and bridges are turned out in sections, so as to be easily transported. But the latest invention in this line is a complete photographic dark room, which is collapsible, so that one may pack it in a small compass and conveniently carry it in one hand by a strap when one goes traveling.

This contrivance, which has been newly patented by two citizens of Wisconsin, enables a photographer to develop and finish pictures outdoors or wherever he may happen to be. All he has to do is to unfold the apparatus and get inside of it, and immediately he has a dark room complete in all respects for his work. It is provided with every necessary convenience, having a window of ruby glass, a light-tight receptacle for the temporary storage of undeveloped plates, a developer tray suspended by hooks, and a "hypo" tray similarly secured. In short, the device is excellently adapted to supplement the portable camera, enabling the amateur to carry with him a complete and businesslike outfit for the production of photographs from start to finish.—*Saturday Evening Post.*

WANTS.

Free to those seeking employment.
Three lines, one insertion, 50c. Three insertions $1.00.

A good all-round photographer desires a situation; thoroughly competent; highest references. Address A. G.

To buy a gallery in a good country town in California. Will pay a fair price. Give full particulars and describe the outfit. H. B., this office.

A retoucher. B., care CAMERA CRAFT.

A gallery in San Francisco. Write, giving price and description. XYZ, this office.

A position in a photo supply store. Have had experience. Position, care CAMERA CRAFT.

A good operator, with business ability, steady and reliable, can secure a permanent position with good salary and commission, or can buy interest in one of the best paying galleries in San Francisco. Address, Reliable, CAMERA CRAFT.

For sale — A gallery in San Francisco. Price reasonable. Owner has two and cannot attend to both. Call at studio, 1104 Market Street. MERSEREAU.

A GOOD EXCHANGE MEDIUM
FOR AMATEURS.

Bring us your exposures.
We will finish and deliver them
the next day

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A SPECIALTY

Goldsmith Bros.

236 Sutter Street

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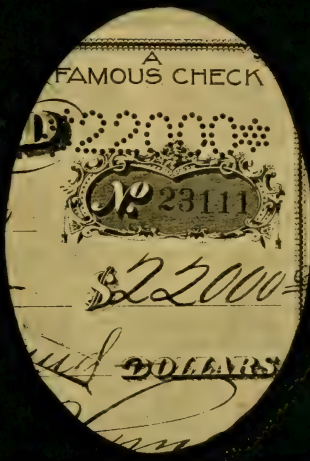

CAMERA CRAFT

PHOTOGRAPHY, THE TERROR OF FORGERS.

A NEW THOUGHT IN PHOTOGRAPHY.

PICTORIAL COMPOSITION.

THE A B C OF FLASH-LIGHT PHOTOGRAPHY.

THE PORTLAND CONVENTION.

SAN FRANCISCO, NOVEMBER, 1900.
PRICE, FIFTEEN CENTS

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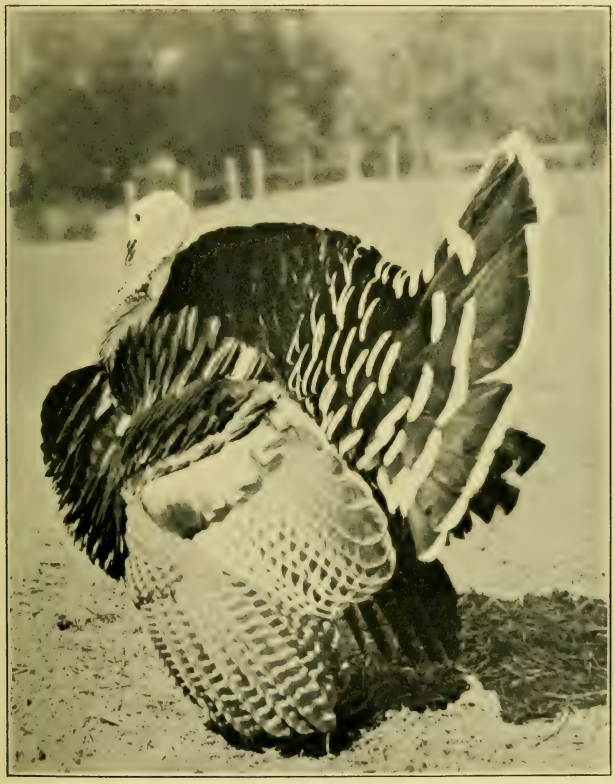
CAPTAIN JACK CRAWFORD.

Arnold Genthe.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, NOVEMBER, 1900. NO. 1.



NEGATIVE BY A. W. RICE.

THE TURK'S LAMENT.

All things shall end, the Prophets say;
Yea, Time itself shall pass away.
Mankind shall fade from Earth's broad face,
And Earth itself dissolve in space.
But sure as this must come to pass,
So sure my end — alas! alas!
The melancholy days are here
When the awful ax approaches near
And my sun shall set.

A NEW THOUGHT IN PHOTOGRAPHY; PICTURING THE MOODS OF NATURE.

By O. V. Lange, Berkeley.

IN THE REDWOODS.

IT MAY seem to you rather a presumptuous title to head an article with, and I fully realize it. Yet, I believe that it will not be so very difficult to explain and show by illustrations what has, in a measure, been realized.

The original pictures from which these reproductions have been taken are the result of experiments made in trying to overcome supposed limitations in photography as a pictorial art. To reproduce certain impressions and suggestions of the continually varying natural phenomena around us, and to point out, as nearly as possible, the poetical aspect of the different moods of Nature is the mission of these first attempts in the "new thought in photography."

I am indebted to Professor B. R. Maybeck for suggesting a gray-tinted paper as a printing basis instead of the garish white papers. This naturally led me to adopting a variety of tints, the idea being to produce effects by tints that may, through exercise of the imagination, be construed to represent various hours of the day, seasons of the year, or temperature and humidity of the atmosphere. This is, in a measure, accomplished by sensitizing crayon paper, having a sub-tint most suitable in enhancing the pictorial value of the leading characteristic in the negative of the scene photographed.

It seems that this must be in the right direction, for according to the sentiment expressed by a leading author and critic, "effects are the sentimental

and imaginative clothing with which we are able to invest things." To carry out the spirit of this sentiment, one should be very sensitive to the suggestions that come from Nature, backed up by an intimate knowledge of technique, all of which are to be employed to give as truthful an impression as possible.

A few of the modes of expression in monochrome used by artists to invest "things" with sentimental and imaginative clothing are crayon, pen and ink, line-engraving, etching and wash-drawing. All have their legitimate spheres of usefulness, also their limitations, and can therefore be exercised only upon such effects as they are best capable of rendering agreeably, and above all, naturally.

What has been advanced about the other monochromatic arts applies to photography as well. It must be kept within its own domain, and not ape other modes of pictorial expression that it is not adapted for. In the application and extension of its technique there are powers and capabilities continually being discovered which no other art in black and white can equal.

Before proceeding further it must be distinctly understood that all manipulations in the carrying out of the following ideas are entirely in the province of legitimate photography. Any one who has a taste for and wishes to explore new things can find much enjoyment in overcoming some of the supposed limitations of the art.

This new effect or print I have named the "Diachrome," in contradistinction to the Monochrome, as the former has two distinct colors to produce effects with, while the latter has only one, which is the pigment used on the substratum of white paper, the white as the name of the print implies not being classed as a color. The idea of sensitizing surfaces other than white paper is not at all new, for in the early days of photography, leather, fabrics, and even chalk were used to print upon, and possibly different shades of paper also.

In modern photographic literature I have yet to discover a description of a definite scheme of employing a series of colors or tints to illustrate the

DAWN.

advancing hours of the day, from dawn to noon and to sunset, together with other subtile effects of atmosphere, where the delicate cool or warm grays play such an important part in charming those who are sensitive to color influences. I know that I will be somewhat handicapped in proving my case, as the reproductions accompanying this article do not give the color schemes of the originals, which are the pictures that I will be describing and not the half-

THE MORNING HOUR.

tones. These preliminary remarks I have deemed advisable to make before going into the detailed description of the prints, and showing their possibilities in "picturing the moods of Nature."

As the editor desired an upright panel to be used as an initial print, I picked out one that is somewhat irrelevant, but it was the only print I had to fit the occasion. It is printed directly on cream-colored, six-ply bristol board. This gives it a very soft and fine-grained appearance. Now that we have this print, perhaps a few words will be interesting. Just beyond Felton, on the

South Pacific Coast (narrow gauge), is the noted group of giants, the Big Tree Grove. These enormous sequoias, two or three hundred feet in height, and so large at the base that in the hollow of one of them a family lived in the early days, are on the bank of the San Lorenzo River. Their sublime and majestic branches form the chief ornament of this part of the Santa Cruz Mountains.

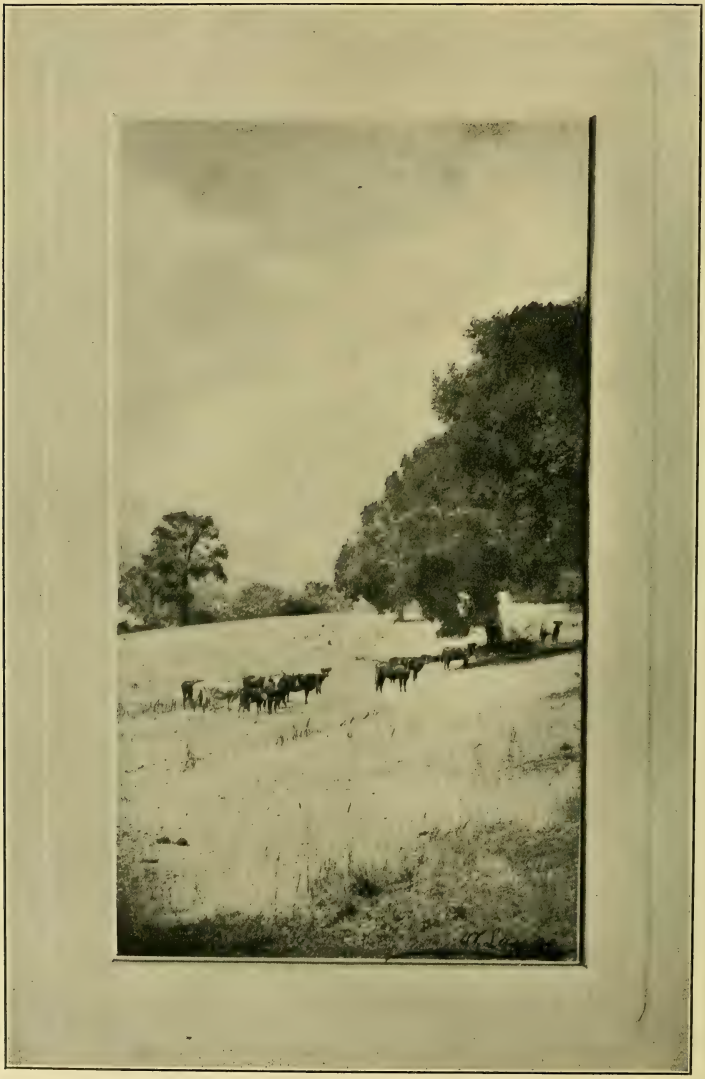
It is not my purpose in this article to dwell upon the rules of composition, yet I would like to say in passing that when photographing tall trees or high waterfalls, the effect is enhanced by trimming the print quite narrow in proportion to the height of the subject and in placing the conspicuous portion, whether it be light or dark, a little off the center, for the sake of variety, an effect usually pleasing in compositions of this character.

The first Diachrome print of the series here presented is entitled "Dawn." To carry out the feeling of the coolness of this early hour, mingled with an almost imperceptible shade of warmth, as can often be noticed at that time when the sky is cloudless, a purple-gray tint was chosen as the basis to print upon. First, because it is a quiet tone, symbolizing the state, or rather the mood, of Nature when stillness reigns supreme. Second, the slight warmth of

THE DAY'S ADVANCING.

the purple is always present in the atmosphere just before the positive glow of advancing daylight.

In speaking of the moods of Nature we find that in almost every moment of the twenty-four hours there is a changing beauty, and each varying beauty affects our sympathies differently. The prevailing tone of the print has been kept very low purposely, as there is naturally hardly any luminosity, and there is a more or less mysterious vagueness surrounding all things, both



HIGH NOON.

animate and inanimate. Those who have made a study of art acknowledge that the most satisfactory and enjoyable pictures are those which stimulate the imagination or excite the feelings by portraying some mood, and not in the mathematical and precise rendering of the things themselves.

The whole scheme of the second print, entitled "The Morning Hour," is brighter and more definite. While the first print was intended to picture the atmosphere of six o'clock in the morning, the second one unmistakably shows that it must be seven or a little later. The russet hue of the early morning has now disappeared. Yellow and blue, modified by the morning vapors, which the sun has not yet dissipated, are casting a mellow luminosity over the charming scene. A delicate tint of pea green carries out the prevailing sentiment of the hour. A commonplace subject can have a poetical and artistic feeling infused into it by selecting the proper hour of the day, choosing the best arrangement of foreground, distance and sky line, and employing the right technique to enhance the value of the picture.

"The Day's Advancing" is the title of the next picture. The streamers formed by the sun penetrating the slowly retiring mist show with unerring certainty, by the angle cast, that the hour is now nine in the forenoon. The color effect to suit this scene, now that the sun is above the horizon, was a light

AFTER THE SHOWER.

buff, with the slightest suggestion of a greenish tinge. By this selection the landscape receives the power to attract and hold the attention by its bright and cheerful undertone, showing through the dark brown shadow-masses.

It will be noticed that, as we have been approaching the noon hour, the high lights and shadows have been growing more intense and contrasty. The tint of the crayon board selected for the next picture, "High Noon," was the brightest and warmest buff, intended to emphasize the feeling of a sultry mid-summer day. The light, scattering clouds overhead seem to be gathering for an afternoon shower. In this picture we not only get the glaring effect of the midday time, but also, with little stretch of the imagination, perceive that the temperature must be high, as the cattle are making for the nearest shade trees. The atmosphere is dry and clear, without a particle of humidity, which is proven by the clear-cut outlines of the trees in the distance.

If we admit the statement already quoted to be true, that "effects are the sentimental and imaginative clothing with which we are able to invest things," then most assuredly the spirit has been kept in this case, for the "things" in this noontide picture have been invested with the imaginative clothing of heat and dryness. The negative upon which these same things were impressed is the one from which the cool and subdued "Dawn" effect was printed, thus proving that to some extent the supposed limitation of only being able to get one kind of a print from a certain negative is a thing of the past. It is a known fact that most successful artists in monochrome have exercised their imagination far more for the creation or selection of effects than the portrayal of tangible things.

The succeeding print, "After the Shower," will also prove the assertion previously made, that the negative is merely the tool, which, by the proper application of modern resources, personal feeling and imagination, has the power to change the environment of subjects and endow them with various poetic sentiments. The sentiment in this case is that of coolness and dampness, emphasized by printing from the same negative on a bluish gray, tinted, crayon paper. By that means the effect of the heavy, leaden state of the atmosphere that overshadows all Nature at sundown was obtained. It must be acknowledged that to convey this feeling properly would be impossible on white paper.

To see the beauty and splendor, or the melancholy solemnity in a picture or in natural scenery, it is necessary to have the gift of artistic feeling. An imaginative or impressionistic picture is like music. It is fitted, not to define an idea or to describe a fact, but to voice a mood of Nature.

In conclusion, I might state that, as a general rule, we must be in a leisurely and receptive frame of mind to read a picture clearly, for some pictures are not meant to be understood at once; but when the proper mood is with us we see, understand, and therefore enjoy.

[Although Mr. Lange fully intended to describe his printing process in this number of the magazine, he became interested in the present article and forgot his original intention. The matter has been called to his attention and will be corrected in the next issue.— Editor.]

THE SELECTION OF AN OUTFIT.

By G. L. Barrows.

Many times I have been asked the question, "What kind of an outfit shall I get?" To the reader who is contemplating investing some of his spare capital, I trust that these few suggestions will not be amiss.

First of all do not go into photography if your aspirations are no further than the "push-the-button, let-the-stock-dealer-do-the-rest idea." This has been found wanting, and the result has been a wholesale condemnation to the cellar of outfits that otherwise would have been productive of good results.

The camera being the main feature, let me take this first. As the amateur is varied in his or her ideas, and aims to get everything possible out of the subjects, a camera taking a 6½ x 8½ plate has been found to be the best all around size. This should be fitted with a reversible back, vertical swings and a rising and falling front. It should by all means have a bellows of at least twenty-six inches focal length, *i. e.*, from the plate to the lens.

The lens, the all-important point of the instrument, should receive the most careful attention. If our eyes were not made perfect we could not see and enjoy nature. The lens is the artificial eye of the camera, and must, therefore, see perfect, if perfect pictures are desired.

Lenses are so varied in construction that the saying, "tell me your purpose and I'll tell you your lens," applies also here. However, as an all around lens fitting most any purpose the amateur will encounter, I recommend the Collinear made by the Voigtlaender Optical Company, Series 2, extra rapid or Series 3, rapid. Either of the combinations can be used as a single anastigmat, thus giving the advantage of three focal lengths, the value of which will be appreciated by him or her who will at some time have a distant object to take. As speed is one of the essential points of amateur photography the Collinear, Series 2, can not be too highly recommended.

The selection of a suitable shutter is often the cause of numerous complaints. After many trials with the various "guaranteed-to-go-off" style of shutters on the market today the writer has found that the "roller-blind" style is decidedly the best. Either the behind-the-lens or front-of-lens Thornton-Pickard patterns will give all the speed necessary for the everyday work of the amateur, and the necessity of doing away with the original mounting of the lens is overcome. It never does a lens good to remove it from the original mounting, as lenses are put up after formulas the same as first-class prescriptions.

For a tripod select any good heavy make. The extra weight in carrying will pay you should the day be a trifle windy.

The balance of the outfit, such as the "spirit level," "brilliant finder" and "plumb indicator," are all good accessories which the amateur will also find necessary adjuncts.

Having put this to practical use in the past six years, both as an amateur and commercial view-gatherer, I trust my suggestions will fall as seed on good soil, and put a new life into him or her who has followed too carefully the directions to "push the button."

PHOTOGRAPHY, THE TERROR OF FORGERS.

By Theodore Kytka, Government Expert.
With illustrations by the writer.

When Carl Becker, admittedly the greatest living forger of modern times, contemplated with satisfaction his greatest work, the now famous twenty-two-thousand-dollar draft on the Bank of Woodland, Cal., raised from the original amount of twelve dollars, he little thought that the science of photography would expose to the world his daring cleverness, which defied the detection of the most skillful bank officials and world-famous detectives. But, strange to say, the art in which the famous forger was learned was eventually the means of his undoing. In his early youth Becker was a skillful lithographic artist, and was, therefore, eminently fitted for the production of spurious checks or papers. When his career of crime had been brought to a close he admitted forgeries amounting to nearly one million dollars, in a series of operations extending throughout the whole of Europe and America, deceiving, by his artistic methods, the most experienced experts on signatures and forgeries.

JOHN SEYMOUR, CHIEF OF DETECTIVES.

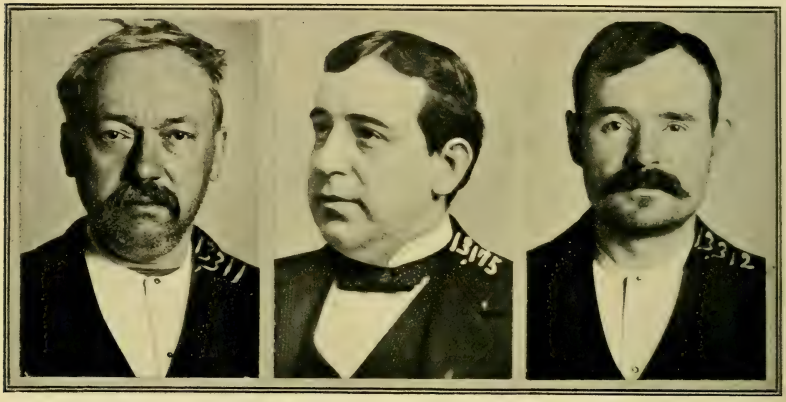
Some years ago the entire secret service system of France was suddenly mystified by the appearance, in many of the banks, of one thousand franc notes of such an exceedingly high order of workmanship as to almost defy detection. The President of the Bank of France admiringly said that the printing and engraving on the spurious notes was superior to those issued by the government. Carl Becker was the man who made these notes, and the French penitentiaries held him for several years in consequence.

Such is the man who, with the assistance of two others, committed the most daring steal ever chronicled in the criminal history of California. On December 13, 1895, A. H. Dean procured a draft at the Bank of Woodland, Cal., for twelve dollars, on the Crocker-Woolworth Bank of San Francisco, payable in the latter city. Three days later Dean presented this draft to the Nevada Bank of San Francisco for deposit to his account. During the time elapsing between the date upon which the draft was drawn and the date it was deposited, the paper had been raised from twelve dollars to twenty-two thousand dollars. The day following the deposit of the raised draft Dean drew all but a few hundred dollars of his account and disappeared. Two days after

THE FAMOUS $22,000 DRAFT FORGED BY CARL BECKER, CONSIDERED A MASTERPIECE IN THE CRIMINAL HISTORY OF MODERN TIMES. THE DRAFT WAS DRAWN ON SAFETY PAPER, THE MANUFACTURERS OF WHICH OFFERED A REWARD OF $1,000 FOR A SUCCESSFUL ALTERATION WITHOUT DETECTION.

his departure the Bank of Woodland repudiated the draft, and a few hours later the detective forces throughout the country were looking for Mr. Dean.

I. W. Lees, then Chief of Detectives, assisted by John Seymour, now at the head of the San Francisco detective force, assisted by the entire corps of detectives and the Pinkerton agencies throughout the country, finally succeeded in fastening the crime on Carl Becker, known in police circles as the "Dutchman" and "The King of Forgers." The raised draft, of course, came into the



THE MEN WHO WORKED THE FAMOUS DRAFT.

Carl Becker, "The King of Forgers" Now serving a sentence of twelve years in San Quentin.

A. H. Dean "The Banker" Who turned State's evidence.

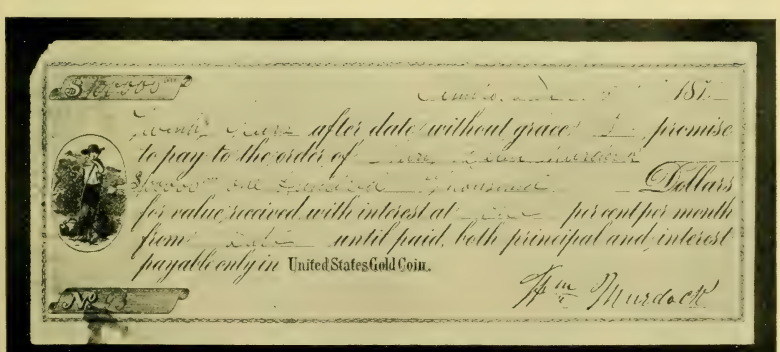
James Creegan, "The Middleman" The originator of the scheme.

possession of the detectives. The writer was immediately retained and began work on the draft. Enlarged photographic copies and photo micrographs of detail in the forged document were made and compared with specimens of forged papers in the writer's possession. The result was most gratifying.

To explain the manner in which the discoveries leading to the arrest of Becker were made, it is necessary to turn back the pages of California's criminal history to May 10, 1893. On that date four drafts were presented for payment to various banks. One of them was for sixty-five dollars, issued by Herbert Kraft of Red Bluff, Cal., on the Bank of California; the second for fifty-five dollars, issued by the Bank of Butte County, Chico, Cal., payable at the London-San Francisco Bank; the third for sixty-five dollars, issued by the Farmers' and Merchants' Bank of Los Angeles, payable at the Nevada Bank of San Francisco; and the fourth for thirty-eight dollars, issued by the Farmers' Bank of Fresno, and payable at the London, Paris and American Bank of San Francisco. These four drafts were presented for payment on the same day, the amount of each draft having been raised one hundred times by the addition of two ciphers following the original figures. So cleverly was the work performed that all four of the drafts were accepted without protest. When Mr. Kraft, the banker, was informed by Detective Morse that the draft issued by him had been raised he manifested much surprise, saying, after having examined the paper, that the mistake might have been made by himself, and the draft issued for sixty-five hundred instead of sixty-five dollars. He was speedily convinced,

however, that the mistake was not his own when other banks declared that they had been victimized in a similar manner. The San Francisco police department brought the work of these forgeries home to Carl Becker and his associates, but the evidence not being sufficient to secure a conviction they were not molested and the bankers had to stand the loss.

It was in comparing the work on the four drafts passed in 1893 with the twenty-two-thousand-dollar draft that Becker's connection with the big forgery was discovered. The enlarged photographs of various portions of the old and new forgeries disclosed the fact that the same method and workmanship had been employed on all of the paper. The discovery of this fact immediately led the detectives to make inquiries as to Becker's whereabouts. It was soon learned that on December 13th, the day upon which the bogus draft was deposited, Becker and his associates were in California, and had stopped at the Galindo Hotel in Oakland. Becker was arrested shortly afterward. During the trials which followed it was conclusively shown that Becker's workshop, where most of his wonderful work was accomplished, was located in the Oakland hotel. After a conviction had been secured by the State, Becker explained to the San Francisco *Examiner* the manner in which the forgeries had been accomplished. He said that the most difficult part of the work on the twenty-two-thousand-dollar draft was in raising the perforated figures from twelve to twenty-two thousand. He discovered a solution for this difficulty by accident. Happening into a cobbler shop for the purpose of having a tear in his shoe repaired, he watched the cobbler deftly place a patch on the tear,


187
after date without grace promise
to pay to the order of
Dollars
for value received with interest at per cent per month
from until paid, both principal and interest
payable only in United States Gold Coin.
Murdock

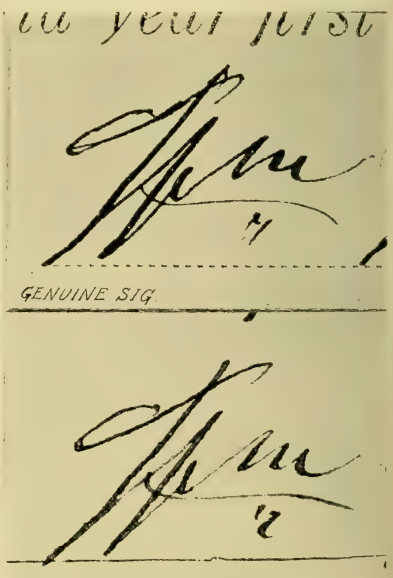
THE MURDOCK NOTE UPON WHICH $180,000 DEPENDED.

glue it to the shoe and polish it until no trace of the patch was apparent. He immediately repaired to his workroom and experimented with paper patches. When he began to work on the raised draft, he used the same process. The unnecessary numbers were cut out and paper of the same quality patched in. The edges were so carefully beveled that the patch was invisible on the original. With a broken darning needle he perforated figures, making the draft read twenty-two thousand dollars instead of twelve dollars. The letters "lve" in the word "twelve" in the body of the draft were removed by the application of a weak solution of chlorinated lime, neutralized with a weak solution of citric acid, and the letters "nty-two thousand" were added to the

original letters "twe" by means of a camel's hair brush and aniline ink, the draft thus being made to read twenty-two thousand dollars.

The original written figures "twelve" were raised to "twenty-two thousand" by a chemical erasure, removing the figure "1," and also the two ciphers following the figure "2," and the two dashes below. In the photograph made of the draft these facts were clearly shown. The second figure "2," in the numbers, appeared on the finished print much darker than the other figures. This one figure was left by the forger in its original state, and the print shows plainly the difference in the quality of the ink.

While the Becker case attracted world-wide attention, it is not the only one in which photography has played a prominent part in recent years. During the past five years many famous trials where photography appeared as a strong, silent witness against forgers and criminals have filled the newspapers and the criminal archives of the State. Perhaps the most famous of the recent cases is that of the Murdock note. The litigation, which took place in Willows, Cal., furnished many sensational incidents. The action was based upon the genuineness of a one-hundred-thousand-dollar note, which purported to have been issued by Wm. Murdock in 1877. The proponents in this case claimed the sum of four hundred and eighty thousand dollars as principal and interest. During the trial the proponents introduced a deed, issued and signed by the deceased in 1894, to be used as an identified exemplar of the signature of Wm. Murdock. An examination and comparison of photographs of the signature on the deed and the signature on the note revealed the fact that the "Wm." on the note was traced, stroke for stroke, from the "Wm." on the deed written in 1894. In order to demonstrate this fact to the jury, the writer made a 17 x 20 inch negative of each "Wm." enlarged about sixty times the size of the original. Both were made on an exact scale, and from these negatives contact bromide prints were made. The prints were made transparent by oiling and superimposed. When the prints thus made transparent were held to the light the fact that one was an exact reproduction of the other was clearly discernible. The proponents were, therefore, unable to collect the claim of four hundred and eighty thousand dollars.



THE GENUINE AND FORGED SIGNATURE IN THE MURDOCK NOTE.

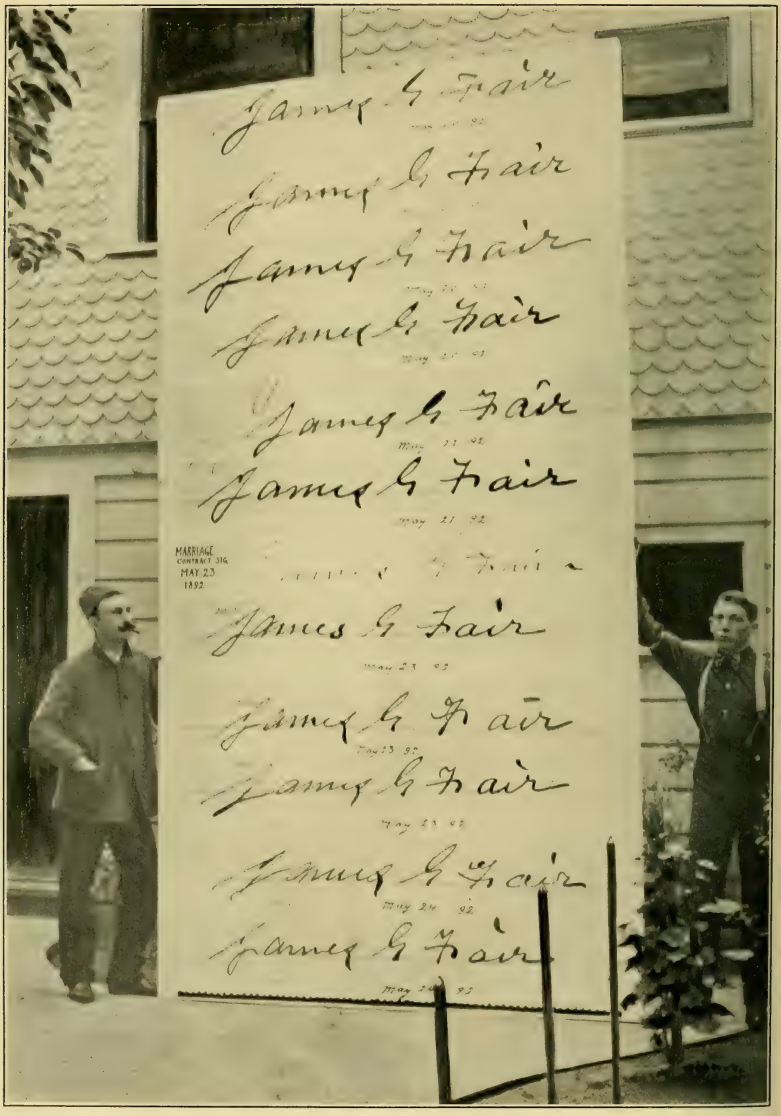
A more recent case in which photography entered largely was in the trial of the case of Nettie R. Craven *vs.* the Estate of James G. Fair. During and preceding this trial, the writer made twenty-three

thousand prints of different sizes, from 8 x 10 inches to 7 x 14 feet. During the J. J. Cooney trial, a phase of the Fair litigation, photography was used in displaying defects in the type used in the notorial blank which bore the date of September 27, 1894, and which document was subsequently proven to be a forgery. The form from which this blank was printed was set up in the establishment of H. S. Crocker & Co., on January 8, 1896, two years subsequent to the time upon which the forged acknowledgement was alleged to have been drawn. The type used in this blank was identified perfectly by a defective "o," thus placing the exact date of the issuance of the blank.

AN ENLARGEMENT OF THE DEFECTIVE LETTER "O" IN THE COONEY BLANK SHOWING THE BREAK IN THE ELECTROTYPE (GREATLY REDUCED).

As the science of photography becomes better known, and its workings better understood by the judiciary, more photographers will be called into the courts as expert witnesses. A photographer producing photographs for use in legal work must, however, exercise great care in every particular. Too much attention cannot be paid to the lens, camera, stand and other details. He must be able to prove the absolute accuracy of his reproduction from original documents. During many years of experience the writer has found that the Carbutt's process plates are the most satisfactory for reproducing pencil and pen writings. A double anastigmatic Goerz lens and Metol-Chavant developer are used by the writer. For prints "B" Bromide paper is used. Mounting is done on linen cloth and stretchers. In washing the big prints it is necessary to use a ball, nozzle and hose. The Supreme Court of the United States in a recent decision admitted enlarged photographic copies, as evidence, after their correctness had been established, on the ground that the enlarged photographic copy shows details existing in the original document not visible to the naked eye.

That this is absolutely true has been shown in hundreds of cases; for instance, dry erasures where a date has been removed and another substituted. An enlarged photograph of this portion taken with the direct sunlight coming from almost the same angle as the copy board, would produce a negative showing the disturbed fibre as contrasted with the hard finish surrounding it. An enlarged photograph of retouched parts of letters in a forged will would show the different layers of ink over each other, particularly where the alteration was



ONE OF THE EXHIBITS IN THE CRAVEN-FAIR CASE.
SIZE, 13½ X 6½ FEET.

done on a genuine will and where the ink is of the same appearance to the naked eye. It would be necessary in showing this work plainly to make an enlargement of from twenty-five to fifty diameters.

While photography has been used in many courts to aid justice in punishing crime, it is also a truth that photography, holding one of the highest positions in the scientific world, is used by criminals in robbing the Government and defrauding the people. I refer more particularly to the recent case of the cigar manufacturer, Jacobs, and his friend, Kendig of Philadelphia, who attempted to float one hundred million dollars' worth of fraudulent one-hundred-dollar bills on the Government. These two photo-engravers reproduced a one-hundred-dollar greenback of the Monroe series with the aid of photography on a metal plate in intaglio. So clever were the imitations that a number passed through the sub-treasury of the United States, and the entire issue of bills had to be withdrawn.

In San Francisco a photographer makes his living by producing bogus lottery tickets regularly every month. He has been convicted numbers of times for this offense, but still continues his work from month to month. He finds a ready market for his work and, as he derives a handsome revenue from it, he is well content to pay the small fine imposed by the courts.

NEGATIVES BY KEMP. MORNING.

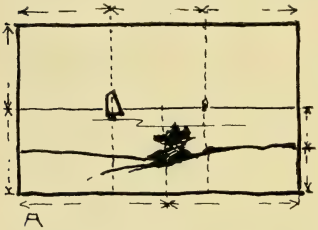
NIGHT.

PICTORIAL COMPOSITION.

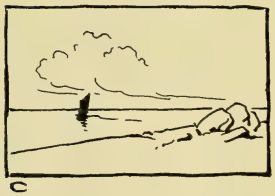
By Charles P. Neilson.
Photos and Diagrams by the Writer.

If a photograph is to be judged by the criterion applied to a work of art, it must follow that some of the principles underlying all artistic creations should be understood and applied by those who hope to produce a picture having the merit of artistic excellence.

It may be well to state at this juncture that exact imitation of the facts of nature does not in itself imply any degree of artistic value. As in literature, knowledge of the facts in nature may be compiled to make an encyclopedia, so in art facts are not without scientific value; but the distinguishing genius of the author is born of his ability to select and arrange in synthetic unity the essentials necessary to compose a perfect whole. This is equally true of pictorial art, and while there are many limitations to which the photographer is necessarily subjected, he is yet free to use such judgment and skill which, rightly directed, may eventually bring about an artistic result.


A

B


C

The principles of composition found in a pictorial work of art are not essentially different from those underlying the construction of a good drama, a piece of music or a well-written story; in fact, it may be perceived, on further consideration, that these principles are universal in their possible application, and that, in order to compose or select material for a picture, it is simply necessary to apply methods of reasoning with which all are, to some extent, familiar.

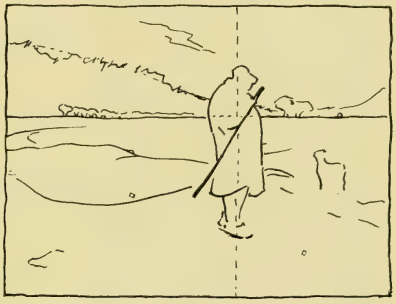
The following are, perhaps, the most important principles that are essential in the composition of a good picture:

Simplicity—When an interesting subject is selected, the aim should be to take within the boundary of the picture only such details and environments as are felt to be absolutely necessary. Innumerable photographs containing excellent pictorial features are spoiled by reason of unimportant additional surroundings that weaken and nullify. Not the more the better, but the less the better, may be taken as a general rule. As an otherwise good story may be spoiled by prolixity, so a good effect may be lost by the proximity of unnecessary and obtrusive features.

By way of further illustration, it may be said that it is in better taste to have one important work of art in a room, and a few less important objects judiciously placed throughout the apartment, than it is to fill the room with bric-a-brac in every possible shelf and corner. The pieces in such a collection

may be both valuable and beautiful, but collectively they defeat the purpose of their existence.

Variety or proportion is exemplified in the avoidance of uniformity, and consequent monotony in spacing the lines and masses composing the picture. Diagram *a* is bad throughout, because spaced in halves, quarters and thirds. In *b* and *c* these defects are avoided. Beauty in spacing is an art in itself, and instructive examples may be found in the works of master painters and architects. Giotto's tower is noted for its beauty in spacing.



It is contended by a writer of eminence that good variation or proportion is literally visual music, music translated in terms of space, and that its effect upon the mind is the same.

Unity — A good example of this principle is seen in the illustration, from a picture by Millet. Observe the manner in which the subject is held together, how beautifully spaced and related are the masses of lights and darks (see diagram *d*). Note how naturally the attention is attracted to the central figure and how beautifully subordinate are the other features — the dog, a dark

BY MILLET. FROM AN OLD ETCHING.

spot in a minor key, and the lower tone of light formed by the sheep, balancing, both in form and shade, the light and dark in the sky. Much may be learned from a study of the works by great painters, and also from the drawings by the best illustrators in the monthly magazines. These should be studied, not with the idea of imitating particular forms of arrangement, but rather to discover the underlying principles of construction.

THE FISHERMAN'S RETURN.

It is not usually difficult to find a central feature of interest, but in the selection and proper subordination of its environment the greatest care must be taken; for surrounding features, although of lesser importance, are yet indispensable, and, like the accompaniment to a beautiful song, it is perfect in itself only to the degree that it brings out into fullest beauty the dulcet tones of the singer.

Contrast—A certain amount of contrast is, of course, essential, but the exaggerated effects obtained in so-called moonlight pictures are to be avoided. The values in such photos are neither true to sunlight nor to moonlight, and are almost invariably without artistic merit.

Parallel lines, whether horizontal, vertical or oblique, are generally to be avoided. The illustration of fishermen coming ashore is an example of balanced and contrasted lines. In the picture of the laughing Chinaman some fairly well-balanced masses may be seen.

"HIS TO LAUGH."

A sense of fitness must be considered when a figure is about to be introduced into a landscape. There are figures which are congruous and others that are not. Many pictures containing fine artistic qualities have been marred by the introduction of figures which were totally out of place. City costumes do not lend themselves well to rustic surroundings. It is sometimes said in extenuation that figures add life to the picture, but when the venerable ruin and beautiful woodland are viewed in the right spirit, they will be found to contain life of their own—a life full of that subtile, undefinable charm which has no need of such additional adjuncts as the nineteenth-century man or woman.

It is not expected by the writer that the statements in this article will prove more than suggestive to those who have not given the subject of composition serious study. The art of making pictures cannot be learned in a day or in many days, and while specific principles may be outlined, they are, at best, but an elementary guide. As the rules of grammar are to language, so are the rules of composition to art — both are guides to mediums of expression; but the ideas must be in the man before he can use the grammar. And, although the principles may seem set, yet they are not in any sense narrow, for the taste of the individual will lead him to select and express his feeling for beauty in endless variety and design.

The æsthetic side of art is infinitely more subtle and profound than the mechanical, and a degree of mastery in the former can only be hoped for by those who love beauty with a strong and steadfast love, and who work patiently and faithfully to portray her hidden charms. Throughout Nature, in all her modes of loveliness, may be seen the hand of a master painter; the elements are his colors and the forces of Nature his brushes. In his great studio of the universe may be seen sketches, suggestions and finished pictures, from which much may be learned, some things selected and everything enjoyed.

CARBON POINTERS.

TRANSLATION.

Here are a few carbon pointers taken from the recent work by Dr. Vogel Duchochois and others that may be of use to the many that are now taking serious hold of this printing method:

In sensitizing the tissue — Avoid air bubbles, not only on the pigment side but equally on the paper. For this purpose pass a wide, soft brush over both sides of the paper after it is immersed in the sensitizing bath.

Avoid dust — Therefore, keep the film side down when in the bath.

Avoid crumpled tissue — After sensitizing, squeegee the tissue on a sheet of yellow celluloid, or better still, squeegee two pieces of tissue on opposite sides of the same piece of celluloid, so that in drying they pull against one another and keep the celluloid flat.

After printing — When the tissue is squeegeed on its final support care must again be taken that air bubbles do not intervene; the soft brush must again be passed over the submerged tissue, and the tissue should be moistened in water that has been previously boiled and cooled, for the source of the small air bubbles that frequently disfigure the finished print is the air that is in invisible solution in the water, but which is liberated by heat.

It is commonly stated that after the tissue has been squeegeed on the final support that it should remain a certain period of time under pressure. It is necessary that a period of from fifteen to thirty minutes should elapse before development, but this need not be under any pressure to speak of.

Do not commence to develop the tissue in too hot water. It is a fruitful source of blisters.

NEGATIVE BY R. H. FURMAN

"DOLLY."

COMBINED DEVELOPING AND FIXING.

To be able to place a plate in a tray, pour on the developer, go away and return to find the plate properly developed and fixed, ready for the washing tank, is the one thing to be desired by the photographer, next to being able to preserve and reproduce the colors shown on the ground glass.

The developing agent, kachin or pyrocatechin as it is known in this country, may make this possible in the near future, as this developer will admit of the use of hypo in limited quantities mixed with it.

Some recent experiments on the subject produced fairly good negatives, but in no way equal to those made in the regular manner. The formula found most successful is given as a base for further experiments, and it may be that the amateur of an experimental turn of mind could modify this so as to obtain the desired results :

Stock solution A—		
Pyrocatechin	125	grains
Sodium sulphite crystals	2½	ounces
Water to make	10	ounces
Stock solution B—		
Sodium hydrate	80	grains
Water	10	ounces
Stock solution C—		
Hypo	5	ounces
Water to make	10	ounces
For full exposures use—		
A	2½	drams
B	3½	drams
C	20	drops
Water	1	ounce

After the development is well started quite a bright light may safely be used; in fact, ordinary gaslight at some little distance does not seem to produce fog. For known over-exposure a drop or two of bromide may be added, the pyrocatechin being very sensitive to the restrainer, or the solution "B" may be decreased. Should development appear to be complete and the plate still not fixed, the hypo may be increased, but this must not be done till after the development has apparently been completed.

The best results obtained so far by the writer are not calculated to enthuse one very much, but the process is one which may be perfected by further experiments. The formula given is only a basis for future work in this line.

The completed negatives seemed to lack brilliancy and were inclined to be thick and muddy. The emulsion also became very soft and, in some cases, where the plates were left in developer over night, disappeared entirely, leaving clear glass.

In place of the ammonia persulphate, R. Namias proposes the following mixture, which attacks most actively the dense parts of the negative:

Permanganate of potassium	0.5	grammes
Sulphuric acid	1	cubic centimeter
Water	1000	cubic centimeters

NEGATIVE BY ARNOLD GENTHE.

HENRY MILLER.

THE A B C OF FLASHLIGHT PHOTOGRAPHY.

By Frank C. Bangs.
Illustrated by the writer.

THE ANSWER TO THE QUESTION, "DO YOU EVER TRY FLASHLIGHTS?" IS GENERALLY REPLIED TO IN THE NEGATIVE, AND THE REASON USUALLY GIVEN IS, THAT AN UNNATURAL, CHALKY EFFECT IS SECURED, AND THAT THE OPERATION IS DANGEROUS AND DIFFICULT. IF ONE WOULD USE A LITTLE CARE, PATIENCE AND A GRAIN OF LATENT GENIUS, FLASHLIGHT PHOTOS WOULD SOON BECOME ONE OF HIS PET HOBBIES.

WHEN WINTER and the rain and snow days approach, the laying of the camera on the shelf is not necessary, as one can purchase from any dealer one-half an ounce of sunlight for the sum of thirty cents. This miniature sun will produce by the aid of the camera as good results as can be obtained by the aid of "Old Sol" himself.

Photographing by flashlight has been tried by hundreds of amateurs, with more or less success. Each one may have his own particular way of doing it. To those who have their own method, and have proved it successful, I would advise them to stay with it, but to those who have never tried flashlight I would offer the following suggestions:

The Camera — Flashlight photos can be taken with any camera from a one-dollar "Brownie," to the most expensive camera made. Good results can be obtained from all.

Flashlight Powders — There are numerous makes of powders on the market, all seeming to be of about the same uniform strength in actinic value. There is also a composition on the market, made by the Eastman Company, known as flash sheets, with which excellent results can be obtained. Powders packed in small, round boxes, with fuse attached, and sometimes called flashlight cartridges, should preferably be emptied in the flash pistol, as it is much safer and quicker. I should add, that the powder mentioned in this article should never be confined. It should always be used in an open, and never in a closed, vessel. There is also a powder on the market known by the name of Magnesium Powder. This powder is exploded by blowing from the magazine of a magnesium lamp through an alcohol flame by means of a bulb. As long as the pressure of the bulb is continued, so long the light operates. I only use this powder for photographing interiors.

Ignition of Powder — While a flashlight pistol is not an absolute necessity, it is very handy, and I would strongly advise the purchase of one. With a pistol one has absolute control over the powder. It is possible with this

implement to set the flash off the instant you desire it, in just such a manner as one would "press the button" to secure an instantaneous exposure. The powder can be ignited in another way by placing a charge on a piece of paper about one foot long, folded like a camera bellows. Place the powder about one inch or more from the end, spreading it about an inch or so along one of the grooves. Put the paper on an old shovel or dust pan. It is necessary to put a weight on one end of the paper, as the explosion causes the burning paper to fly in every direction, often doing considerable damage. With this method one can place the flash in any position desired.

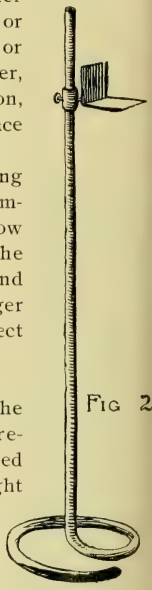


FIG 2

Another way to use paper as a powder ignitor is by placing the powder in the end of a lamp-lighter. Before the paper is completely rolled, place a charge of powder in the large end, and allow a piece of the paper to hang loose. Another method of firing the flash is illustrated in figure 2. Any plumber will make this stand at a reasonable figure. The charge of powder varies; the larger the room, the larger the charge. The nearer one is to the subject the less powder it takes, and vice versa.

Plates — Use the fastest plates made.

Focusing — Never use a stop below f/8. All the lights in the room should be left burning, and at no time, with exceptions hereafter noted, should they be extinguished unless they are reflected on the ground glass, and this should be avoided, as all the light possible to obtain is needed to take a successful flashlight photo. If a universal lens or fixed focus camera is used, it is necessary to use the finder. In this case, place the subject in its proper position, using a candle or lamp and holding it at extreme portions of the subject. By this means it will be easy to ascertain, by noticing the position of light, whether or not the subject is properly on the plate.

WHO'S BLUFFING?

When a camera is used that requires focusing the following method is used: Take out the ground glass and either moisten it with water or smear a little vaseline over the rough side, and then replace it. This makes the glass almost transparent. It is then possible to look on the ground glass and focus on the subject almost as well as in broad daylight. If the light of the room is not sufficient, hold a lamp near the subject, and enough illumination will be secured.

Posing — While it is not imperative, it would be better if the subject be not allowed to look directly at the camera. Avoid having polished wood or plain doors for a background, as they reflect the flashlight

and give distorted effects. A dark or light background will do. It is advisable to have the subject quite a distance from the background, so as to avoid the casting of shadows.

Deceive your subjects as much as possible as to the time you are going to set off the flash, as they generally close their eyes or screw their faces into horrible grimaces, thinking, as they do, that the explosion will cause their sudden death. In taking a group it is necessary to arrange it so that one person will not shade another from the rays of the flash. As a flashlight throws very strong shadows, the person shaded would hardly show in the finished picture. I would suggest forming the group in a semi-circle.

If the operator also desires to be in the group when the picture is taken he can do so by a very simple operation. It is only necessary to put the powder on a piece of paper as before described and set the paper on the stand (figure 2) or a high chair or ladder. After having posed the group, leaving a vacant place easy of access for yourself, open the lens, light the paper about three inches or more from the powder, take your place in the group, await the flash, and after the explosion close the lens. The time during which the lens is left open, or passing in front of the lens, does not affect the most sensitive plate. I have left the lens open as long as four or five minutes waiting to catch a pose without the plate being affected at all. This method can also be used if the photographer desires to take his own picture. The focus should first be obtained by using a lamp placed in the position that the operator will occupy. "Who's Bluffing?" was taken by this method, the operator being also in the picture.

"CRY-BABY."

Position of Flash—The position of the powder when it is exploded is the most important matter to be considered in taking a flashlight picture. A very simple method of determining the proper point to set the flash is to take a light—a bullseye lantern or bicycle lamp is preferable—and hold it at different points of view, noticing the shadows on the subject. When the desired shadows have been obtained, explode the flash at the same place where the lamp was when the shadows were as wanted. The usual direction given by flashlight powder manufacturers is to set the flashlight back of the camera, a little to the right or left. While some have been successful with this method, I have never used it, my invariable rule being *to get as near the subject with the flash as possible without having it in range of the lens.* Use this rule and failure will be almost impossible.

The following diagrams indicate a few positions I use:

When more than one flash is noted either position can be used. While the position of the flash is shown, the height I must leave to the judgment of

the reader, as it varies in almost every case. In taking groups put the flash three or four feet above their heads (figure 7). Groups are the easiest of flashlight pictures. The only point to be careful about is, as I have stated before, not to let one person shade another from the rays of the flash.

In making portraits I generally use the position shown in figures 4 and 5 with the flash placed a little above the height of the subject's face. If a side view is taken, arrange it so that the shadows thrown by the subject's ear are barely visible.

FIG. 4

FIG. 5.

The position indicated in figure 6 gives a Rembrandt effect, and I have secured very pleasing results by its use. I would suggest that a dark background be used. The screen is not necessary unless a very wide angle lens is used.

The arrangement shown in figure 8 makes a very pretty effect. It gives the appearance of a fire in the fireplace, the reflection from which shows the faces of those sitting in the room in bold relief. The room should be dark while the picture is being taken. Take one-half of a flash sheet and break it into small pieces. Run a pin through these and attach a long piece of paper to act as a fuse, and pin all to a piece of wood. Place the wood in an upright position, as noted in the diagram, pose the subjects in front of the fireplace as desired, and light the paper. This will give the operator time to get out of view or to be included in the picture before the paper burns up to the flash sheet. The picture is improved by keeping the subject as still as possible after the first flash and setting off another, of about one-eighth of a flash sheet, at letter "B." This is done for the purpose of giving a little more detail in the shadows. At letter "A" it is advisable to place a pot of ferns to shield the plate as much as possible from the flash, as, in this instance, it will be noticed that the camera is pointed directly at the powder.

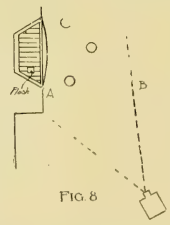


FIG. 8

With the next arrangement (figure 10) it is possible to get effects impossible to secure in any other way. It is made by closing the folding doors between two rooms, leaving a space between them of about a foot or more. The light from the flash goes through this opening. The room in which the subject is in should be completely darkened while the picture is being taken.

Composite photos may be taken in the following manner, the only necessary appliance being a folding door (figure 11): In the first instance, bring out the folding door, "A," to the position indicated. After firing the flash at the point noted, close the lens and rearrange as in "B." After setting off the flash in this position, you have secured two exposures on the same plate. This plan, with variations which will suggest themselves to the operator, will give various amusing poses. It is necessary, with this arrangement, to use the same quantity of powder in each instance, for the reason that the same illumination is necessary to carry out the deception. If particular attention were not paid to the quantity of powder used, one portion of the

FIG. 6.

FIG. 7

NOTE—Circles represent subjects in the diagrams; squares, position of flash powder.

plate would be more strongly illuminated than the other. Great care must also be used in bringing out the folding doors to the exact point where the opposite door was before it was pushed back. If the exact point is not reached by both doors a narrow line will show on the plate where one door overlapped the other. If the folding doors are not available, portieres can be used by hanging them on a rope stretched across the room. I would advise the use of a dark background with this experiment.

BASHFULNESS.

A picture of a smoker lighting a cigar and showing the reflection from the light of a supposed match is one of the most novel as well as interesting experiments I have yet described. This experiment must be made with extreme care, as it is dangerous and the operator is liable to receive a serious burn unless the greatest attention is paid to the operation. I might add that I have yet to try this experiment without securing a slight scorching, but the result justifies the means. It is first necessary to bend a piece of tin into such a shape that it can be conveniently placed in both the hands when they are held as one would in shielding a burning match from the wind. On this tin fasten a piece of flash sheet about half an inch wide and one inch long. The flash sheet is attached to the tin by means of the gummed part of an envelope, moistening it and pasting over the edge of the flash sheet. To take the picture, hold the tin in the left hand ready for action, strike a match on a piece of sandpaper, which should be fastened to the tin, and light the sheet. This is necessary for the reason that if the match were lighted on anything else, the bringing of the match, while lighted, up to the necessary point would make a streak on the plate. I do not wish it understood that the operator must hold the flash sheet right up to the edge of the cigar. Hold it about a foot and a half away from the face, as if waiting for the match to burn bright enough to use. As the flash sheet used is very small, it is necessary to at least make a three-quarter view of the subject, as the plate will not show as well if a full view be taken.

Fig. 10.

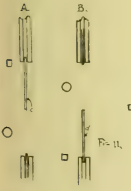


Fig. 11.

(Continued in the December number.)

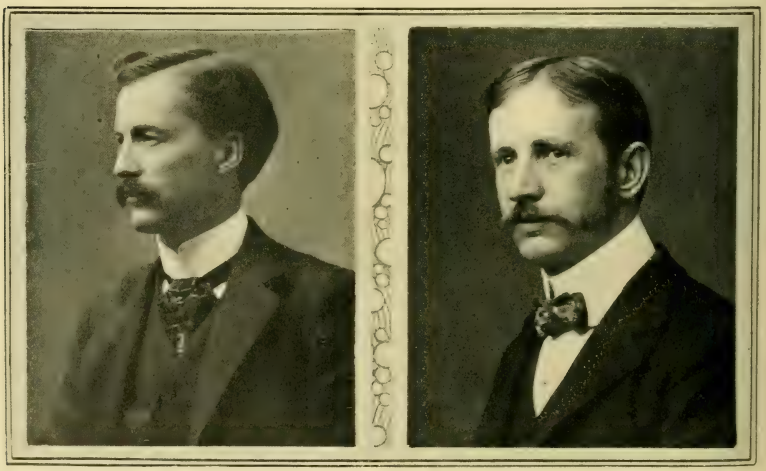
W. B. WEBSTER.
Chairman of the Executive Committee.

CAPT. ROBT. H. FLETCHER.
Curator Hopkins Institute.

PROGRESS OF THE SALON WORK.

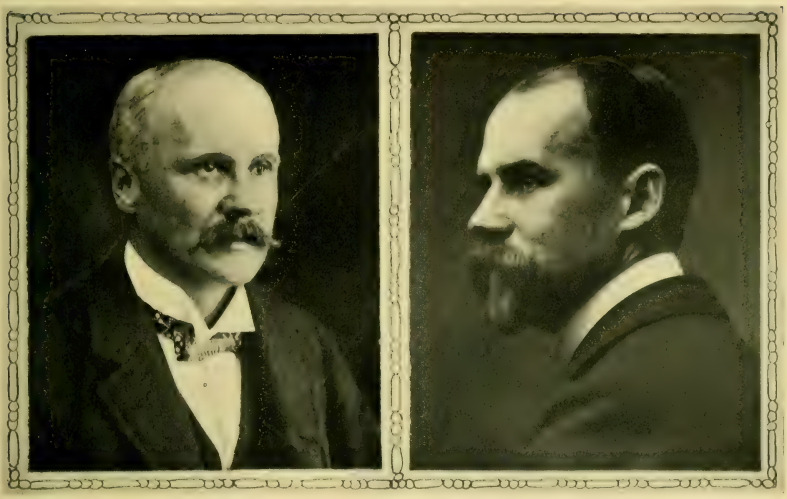
WITH PORTRAITS OF ITS MAKERS.

There remains but two months before the San Francisco Photographic Salon will open its doors, and that these two months will be full of action need not be said. The committees have been working industriously, and the result of the flood of literature scattered broadcast over the world is beginning



A. J. TREAT.
Chairman Hanging Committee.

DR. E. G. EISEN.
Executive Committee.



J. W. ERWIN.
President Camera Club.

W. E. PALMER.
Chairman Committee on Publicity.

to be felt. The thoroughness of the preliminary announcements sent out by the Committee on Publicity obviated the necessity of further correspondence with intending exhibitors, and therefore the heavy correspondence incident to the average salon has not been necessary.

From many sources CAMERA CRAFT has learned of the widespread interest taken in the first Pacific Coast salon, and is in daily receipt of letters from intending exhibitors. Much of the work now on exhibition at the

A. G. MC FARLAND.
Executive Committee.

A. L. COOMBS.
Executive Committee.

W. J. STREET.
Executive Committee.

W. J. PIATT.
Executive Committee.

Philadelphia salon will be sent to San Francisco after the close of that exhibition.

The interest exhibited by the professional photographers in the salon has been very pleasing, and few of the western professional workers will neglect to send examples of their art.

W. B. Webster, Chairman of the Executive Committee, has requested CAMERA CRAFT to give publicity to the following letter:

TO THE MEMBERS OF THE CALIFORNIA CAMERA CLUB:

The San Francisco Photographic Salon of 1901 is now an established fact. As the initiative was undertaken by our club we shall be held directly responsible for its success or failure.

Your Board of Directors has used its best endeavors in the appointment of the various committees and in properly attending to the preliminary work, but to make this salon the success that the friends of the California Club confidently expect it to be, we must have the best individual effort of every member of the club. This is no small undertaking upon which we have entered, and although the San Francisco Art Association has offered us every help, and has seconded our efforts in every possible way, they look to the members of our club for the ultimate success of the exhibition.

Your committee has solicited the co-operation of other clubs and of prominent individual photographic workers throughout the world, and expect a liberal response from every direction. But from the members of our own club we must look for the sustaining of that just pride which we should all feel in club matters and in the absence of our president, Mr. Erwin, I personally appeal to each and every member to make some effort and put forth their best work for this occasion.

W. B. WEBSTER,
Vice-President California Camera Club.

THE PORTLAND CONVENTION.

FULL REPORT OF ITS PROCEEDINGS.
ENTHUSIASTIC PHOTOGRAPHERS OWNED THE CITY FOR THREE DAYS.
"CAMERA CRAFT" MADE THE OFFICIAL ORGAN.

PORTLAND, OR., October 28th — During the past three days the photographers have owned Portland. The gates to the city were thrown wide open and every photographer had a key dangling from his watch charm. The proceedings of the proposed "Photographers' Association of Oregon" so far exceeded the expectations of its promoters that of necessity the name of the organization had to be changed to the "Pacific Northwest Photographic Association," so that it could embrace Washington and Idaho. The first officers of the new organization are: A. L. Jackson, of Tacoma, president; H. D. Trover, of Salem, first vice-president; Charles Butterworth, of Portland, secretary and treasurer; Ed Curtis, of Seattle, vice-president for Washington; S. Aune, of Portland, vice-president for Oregon; H. C. Meyer, of Boise, vice-president for Idaho.

The next convention will meet in Portland. The struggle for the honor was a very pretty one. Tacoma was a close contestant, and for a while the result was in doubt, but the advantages of the Webfoot metropolis carried the day and the delegation from the City of Destiny gracefully acknowledged their defeat.

CAMERA CRAFT was made the official organ of the Association by unanimous vote.

Such in brief is the substance of the business transacted at the convention. Following is a detailed program of the session:

THURSDAY — Informal Reception at Convention Hall. Afternoon — Addresses by the Mayor and by President Hayes; Reading of Communications by the Secretary; Naming the New Organization; Appointment of Nominating Committee; Appointment of Committee on Constitution and By-Laws; Appointment of Judges; Adjournment, Followed by Demonstrations on Velox Papers by Mr. H. C. Duryea.

FRIDAY — "Criticism of Work from an Artist's Standpoint," by Professor Charles Wilber; Report of Nominating Committee; Election of Officers; Report of Committee on Constitution and By-laws; Question: Place for Next Meeting; Report of Judges in Grand Portrait Class; Addresses. Afternoon — Demonstrations in Posing, Lighting and Negative Making, with the new Pacific Plate, at Mr. Tolman's Studio, 227½ Washington Street, by A. L. Jackson. Evening — Demonstration in Working American Aristo Papers, by F. H. Doyle, in Convention Hall.

SATURDAY — Report of Judges; Report of Secretary; Report of Treasurer; General Discussion for Good of Association; Vote of Thanks to Complimentary Exhibitors, Manufacturers; Closing Addresses; Adjournment. Saturday, from two till ten o'clock, free admission to citizens of Portland.

Mayor Rowe's address of welcome was in part as follows:

It affords me great pleasure to welcome the Photographic Association and its friends to Portland. Your meeting is significant in many ways. It brings together able representatives of three states — states which are wonderful in their varied resources, in their possibilities of development, in scenic beauty, and most in the mental and physical vigor they are contributing to the race. You are scientists and artists of the truest type; scientists by virtue of your careful study and investigation in one of the most interesting fields of

knowledge which this century has opened to men; artists because of your keen appreciation of the true and the beautiful. You are interested in one common cause, the advancement of learning, and with that spirit there is always a liberalism, a good-fellowship, a sincere good-will which shall go out from you in your various communities when you return home.

The people of California, Washington and Oregon should be like those of one State. Our interests are all the same. The future for each is golde ni nits promises. Did we not know of the matchless grandeur of a thousand places in California and Washington, I might be pardoned for believing that your selection of Portland as a meeting-place was due to the beauties which surround it.

An American writer has told an interesting story of a poor, cooped-up office man who was accustomed to spend his Sundays in long rambles in the country, and to his intimate friends he boasted of great possessions of land, vast estates, whole counties. A friend who knew he had not an acre rebuked him for his prevarication, but the fellow replied that when he went into the country he owned it — mountains and valleys, woodlands and pastures, green fields, sunlight and shadows — all except the dirt and the fences; everything that was beautiful was his. That man had the soul of an artist. I hope that you will own every beautiful scene in Oregon, and to the extent that your profession will allow, take them with you; and I trust, too, that if your attention is arrested by a damp climate or muddy streets that the genial hospitality of Portland people will quickly lead you to forget them.

The progress of science in the nineteenth century has been so remarkable, there have been so many marvelous accomplishments, that we fail to appreciate all. The taking of a picture seems comparatively simple, but it represents a century of thought, of investigation, of almost infinite labor. It is the progress of such labor that is enduring. The nations that have crumbled to nothingness shall be perpetuated in history because of their contributions to art. Italy's magnificent contribution to the civilization of the world is not the splendor of the Roman emperors, the pride of the Roman soldiers, or the triumph of Roman conquests, but rather the poetry, the music, the paintings, the architecture and learning of its people.

I trust that a keener appreciation of art, a more liberal patronage of learning, shall distinguish the American people during the coming century. I hope that your labors here will be fruitful. Your study and investigations are of very great importance, and it, therefore, affords me great pleasure to welcome you here.

To which President H. C. Hayes replied:

Ladies and Gentlemen:— It gives me pleasure to be permitted to meet with you in convention here, and to have the honor to welcome you to the first assemblage of the photographic fraternity in Oregon. We meet for the first time under the most favorable conditions. The large attendance, the varied and exquisite display of our chosen art, the zealous enthusiasm of the contributors and the hearty encouragement of all who are interested in our work give rise to the belief that the photographers of the west coast have awakened to the fact that the time has arrived when they, collectively and individually, may be benefited by a general meeting together, periodically, for the exchange of ideas, exposition and comparison of photographic productions, demonstrations, lectures, discussions, expert opinions, friendly greetings and social intercourse — all working together for the general advancement of the art and the mutual advantage and betterment of the artist. If this indeed be true, and its consummation accordingly reached, then the photographic art of this and our sister States shall have entered upon a new era — an era of progression which, if kindly fostered by each and all of us, will give stronger foothold, push us onward and upward until we find a place in the ranks of the foremost photographers of the land.

Brothers, again I greet you, and may this be the birth and beginning of what may develop into one of the most interesting and influential photographic associations of America.

Among the exhibitors were:

Eastman Kodak Company, of Rochester, N. Y.; American Aristotype Company, of Jamestown, N. Y.; Nepera Chemical Company, of Nepera Park, N. Y.; Camera Craft Publishing Company, of San Francisco; Kirk, Geary & Co., of Sacramento and San Francisco;

Montgomery Scenic Company, of San Francisco; Graves Photo Background Carrier Company, of Roseburg; Stuparich Card Manufacturing Company, of San Francisco; Weister & Co., Woodard, Clarke & Co., the John S. Meek Co., the Skidmore Drug Co., Hayes & Short, E. W. Moore, S. Aune, Butterworth & Lotan. A. M. Hoffstaeter, J. H. Eaton, Davies, Tolman and J. F. Ford, of Portland; Clevenger, Grant's Pass; Cheney, Oregon City; B. W. Rush, Clatskanie; W. S. Bowman, Pendleton; J. H. Romig, Joseph, Or.; Gardner, Corvallis; James' Studio, North Yakima; Mayer, Seattle, Wash.; Kirk, Everett, Wash.; F. R. Stoermer, of San Francisco.

Among the complimentary exhibits were those of Schumacher, of Los Angeles; A. L. Jackson, of Tacoma; Ed. Curtis, of Seattle; and R. Waite, of San Francisco.

Prize-winners were exhibited by S. Schreiber, of West Grand, Wis.; E. E. Dexter, of McKeesport, Pa.; J. Dean, of Waco, Texas; A. L. Jackson, of Tacoma; F. W. Guerin, of St. Louis; and W. Proctor, of Wheeling, W. Va.

The prize-winners in the Portrait Exhibition were: A. L. Jackson, Tacoma, gold medal; W. Proctor, Wheeling, W. Va., silver medal.

CONSTITUTION AND BY-LAWS OF THE PACIFIC NORTHWEST PHOTOGRAPHIC ASSOCIATION.

ARTICLE I.—Sec. 1. The name of this organization shall be the Pacific Northwest Photographic Association.

Sec. 2. The object of this Association shall be the advancement of Photographers and the interest of its members.

ARTICLE II.—Membership—Sec. 1. Professional Photographers, their regular employes, and all those professionally interested in Photography will be eligible to membership in this Association.

Sec. 2. The dues of all members shall be two dollars per year, payable in advance, this amount to be reduced when the surplus in the treasury shall amount to five hundred dollars.

Article III.—Officers—Sec. 1. The officers of the Association shall be a President, three Vice-Presidents (one for each State), a Secretary-Treasurer and a Board of nine Directors, the President, Vice-President and Secretary-Treasurer being members of the Board of Directors, the other members of this Board being appointed by the President. The officers elected to hold their places until the first of January of the year following the election, the election of officers to take place annually on the second day of the annual meeting.

Sec. 2. The President shall preside at all meetings of the Association and shall have the powers and exercise the usual functions of a presiding officer. The Vice-President shall have the power of the President in case of his absence, or during the vacancy of the office.

ARTICLE IV.—Secretary-Treasurer. The Secretary-Treasurer shall furnish a bond, the amount of which shall be decided upon by the Board of Directors.

ARTICLE V.—Meeting. An annual meeting of the Association shall be held in such city as may be chosen by the two-thirds vote taken at the preceding session.

ARTICLE VI.—Amendments. Amendments to these By-Laws must be introduced on the first day of the annual meetings, and may be voted on at such times as the Association shall decide at that meeting.

ARTICLE VII.—Order of Business. Roll-call of officers. Reading of the minutes of the previous meeting. Report of officers. Communications. Report of standing committees. Report of special committees. New business. Unfinished business. Good of the Association. The nomination and election of officers. Adjournment. Cushing's Manual to be used.

NOTES OF THE CONVENTION.

One of the most pleasant incidents during the convention was the presentation of an engrossed vote of thanks to Frank Doyle, representing the General Aristo Company, for his work during the session.

The demonstration by A. L. Jackson on the new Pacific plates was made before an audience of eighty-five professional photographers. The demonstration took place at Tolman's studio, 227½ Washington Street, and lasted three hours.

Mr. Charles H. Kirshner, of Berlin, attended the convention, and had a number of interesting pictures on exhibition.

The reception to the citizens of Portland during the last day of the convention was attended by hundreds of interested visitors. The exhibition of photographs was very large and comprised many of the prize-winners of the year.

"Criticism of Work From an Artist's Standpoint," a lecture by Professor Charles Wilber, was one of the most interesting events of Friday's session.

Many women photographers attended the convention. Their interest in the transactions of each meeting was marked and caused much favorable comment on the part of the sterner sex.

The demonstrations on Aristo paper were given on the second and third days of the convention and were liberally attended.

The committee who drew up the constitution and by-laws was composed of the following members: Frank Averill, Portland; L. D. Hicks, San Francisco; Frank Doyle, New York, and Charles Butterworth, Portland.

THE CAMERA CRAFT EXHIBIT.

CAMERA CRAFT exhibit at the Portland convention was pronounced by all visitors as the best on the floor of Hibernia Hall. One of the most interesting features of the exhibit was the CAMERA CRAFT Kromskop. This was the first of these wonderful machines to be exhibited on the Pacific Coast and attracted great attention. The press comments on its workings were even more brilliant than the colors shown in the many pictures displayed. The series of carbon prints by F. Worseley Benison, of England, was another interesting feature of the exhibit. *L. D. Hicks.*

GOING TO MEXICO.

Many photographers will accompany the excursion to Old Mexico on November 14th, under the auspices of the Southern Pacific. The excursion will be under the personal supervision of one of the most experienced conductors in the country, and especial attention will be paid to the desires of the amateur photographers who desire to bring back with them remembrances of the trip.

The opportunities for photographic work in Old Mexico have been appreciated by but few artists, but the popular excursion should do much toward encouraging future pilgrimages.

NEGATIVE BY O. V. LANGE. A BAY VISTA.

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PADEREWSKI.

THROUGH INADVERTENCE, THE COPYRIGHT CREDIT WAS OMITTED UNDER THIS PORTRAIT LAST MONTH. AS THE PICTURE IS MOST VALUABLE THIS CORRECTION IS MADE WITH A VIEW TO PROTECT THE PHOTOGRAPHER.

CAMERA CRAFT

A PHOTOGRAPHIC JOURNAL
ISSUED MONTHLY BY

THE CAMERA CRAFT PUBLISHING COMPANY

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CARL E. ACKERMAN, Managing Editor. F. I. MONSEN, Associate Editor.
L. D. HICKS, Business Manager.

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VOL. II. SAN FRANCISCO, CALIFORNIA, NOVEMBER, 1900. NO. 1.

"It is hereby further resolved by unanimous vote of this Committee that "Camera Craft," having the interest and welfare of the professional photographers at heart, be appointed the official organ of the Pacific Northwest Photographic Association."—(Extract from the Constitution of the Pacific Northwest Photographic Association.)

DO NOT DELAY

Too much attention cannot be paid to the letter from Vice-President W. B. Webster, published elsewhere in CAMERA CRAFT, urging instant action on the part of photographers who expect to exhibit at the coming salon. CAMERA CRAFT desires to urge upon the photographers of the West the responsibility which rests upon them in making the salon a success. The great trouble with affairs of like character in the East is the fact that photographers wait until the last moment before sending in their exhibit. The time allowed the hanging committee in which to select the pictures to be exhibited from among the mass submitted is only two weeks. Although the committee is energetic, and ready to devote much time to their work, the time allowed is so short that they cannot possibly do justice to the exhibitors if the pictures do not begin to come in at an early date.

This matter is the most important with which the management of the salon will have to contend and it is one that vitally interests every exhibitor. While CAMERA CRAFT is far from advising that old pictures be sent, still it is much better to send in pictures already on hand than wait until December to make new ones. It is to be hoped that every intending exhibitor will take heed of this warning.

PHOTOGRAPHIC ADVERTISING

On numerous occasions CAMERA CRAFT has called attention to the part photography is playing in advertising the Pacific Coast and the West to the world. Annually thousands of pictures are sent from California vividly portraying the wonderful resources, beautiful and majestic scenery, and the ever-varying conditions of Western life. As has been stated before by CAMERA CRAFT, the value of this class of advertising to the State cannot be computed. The display of the Southern Pacific Company at the Paris Exposition and the experience of its attendants, as shown by the published statements of W. H. Mills, but adds to the force of this conclusion.

At the Exposition there were exhibited by the Southern Pacific several large panoramas, showing, to some small extent, the vastness of the big tree groves and the luxuriant surroundings of several of the leading California hotels, together with a miscellaneous collection of California views. The interest excited on the part of the visitors who saw the photographs was greater than that excited by any other portion of the exhibit. It is only through photography that the beauties of this State can be displayed for the admiration of the East and the rest of the world. The Southern Pacific officials realized this in making up their exhibit, and deserve much credit for the manner in which the details were carried out.

Another example of the manner in which this great corporation is advertising the State through photography has just been received by CAMERA CRAFT. It consists of a small booklet, entitled "The California Big Tree Primer, No. 1." It is printed in large type and is illustrated with several photographs of the Big Trees in the Mariposa Grove. The booklet is evidently designed for distribution in the schools of the United States, and starts out in the customary primer style. The text is so arranged as to be readable even in the kindergarten, yet contains information unknown to many of the citizens of California. The value of this booklet in advertising the State to the younger generation of Americans cannot be estimated.

THE PHILADELPHIA SALON

Our Eastern correspondent wires us that out of the two hundred and odd pictures exhibited at the Philadelphia Photographic Salon over fifty per cent are the products of the judges of the exhibition. In the language of our correspondent, "it is the Chicago show over again." That this statement is not overdrawn is evinced by the fact that none of the exhibits sent from California have been accepted so far as we are able to ascertain. CAMERA CRAFT has had the privilege of viewing some of the rejected work, the character of which precludes all possibility of the Philadelphia show being anything other than a display of the wierd and unhallowed examples of modern photographic art shown at the Chicago Salon.

Watch for the Christmas number of CAMERA CRAFT. It will be one of the handsomest photographic publications ever issued. If you are not a subscriber, order now from your newsdealer. Although the issue will be large the demand will be great and the supply exhausted before you are reached.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

AMERICAN JOURNALS FOR OCTOBER.

The Photo Miniature is devoted to "Chemical Notions for Photographers." The editor states that he puts this number forth as an act of faith, faith in the ability of the reader to follow it. After carefully and interestedly reading it, the belief that the editor has a little too much faith is an easy conclusion. Not but what the subject matter is good and the diction excellent, but when, on the seventh page, it is assumed that the reader is already conversant with chemical equations and quantivalence, and the writer gravely states that "at this stage the student will have a firm grip of the essential principles of volumetric analysis," it may be pretty safely asserted that chemical notions will not sink deeply into the minds of the average reader. To the man fairly versed in chemical science Mr. Bolas' essay will afford a profitable half-hour's reading.

The next number will undoubtedly be a popular one, being "Photographing Children." The happy possessor of a camera generally "undertakes" the baby first, and thereby comes to grief. Therefore, this number should be particularly interesting.

Photo Beacon — More than once the excellent chapters on "Artistic Landscape Photography," by Mr. J. A. Hodges, have been referred to in these columns. This month he deals with foregrounds, emphasizing their great importance in pictorial photography. Incidentally the writer condemns the too common error of stopping down, which by destroying aerial perspective so often kills a picture. The Paris Exposition exhibits receive some attention, and one of the most interesting of them, namely, a focal plane magazine camera, working at a tested speed of one four-thousandth of a second at full opening, is described at length. The rest of the number is chiefly concerned with home-made appliances.

Anthony's Photographic Bulletin — The best thing this month is a translation of a paper by Dr. E. Vogel on "Carbon Printing," which has many practical points not met with elsewhere. "Photography in Surveying," by J. A. Flemer, is a valuable, though technical, paper on an application of photography that seems to be growing in importance. The rest of the number deals largely with matters of business interest.

The Professional and Amateur Photographer — Those of our readers who seriously work at portraiture will be repaid by reading the article on "Hands and Light," by Francis Paulus, in the October number. An illustrated note on a "New Process of Negative Making," by Edmund Ernst, is of decided interest. Properly speaking, it is a method of duplicate negative making, and consists in exposing a dry plate to the action of light, then printing it under a negative until a positive image is formed, which is placed in a developer; the positive image disappears and a negative takes it place. This is clearly a case of solarization and reversal, but the interest thereof lies in the writer's statement (fully exemplified by his illustrations) that the negative so produced is softer and often of better quality than the original. As reproduced negatives tend to hardness, this method may have practical applications.

Photo Era — The current issue opens with an interesting article, by Mr. McBean Johnstone, on "Baby Photography," a subject that is daily gaining more attention. To those interested in the application of photography to zoology, Dr. Shufeldt's article on "Special Methods in Fish Photography" will be very welcome. F. R. Fraprie's paper on "Methods of Fixing" is a protest against the acid bath, and an advocacy of straight hypo. Mr. Herbert White Taylor discourses on the "New Movement in Photography," and enriches the number with a most beautiful illustration entitled "A Portrait," although the background is somewhat incongruous.

The Photo American — After some months' absence, that most prolific of writers, Mr. Edward W. Newcomb, returns to the editorship of this journal, and opens the October issue with most useful and sensible advice on "Preparing Solutions"; after which follows an article on the "Coming Salons." Mr. McBean's serial article on "Landscape Photography" deals with the massing of light and shade, that most difficult and important

of all the elements of composition. It is a good article, and to be commended to all who seek to make photographs that are pictures. "The Mounting of Photographs," by Harvey Webber, is also useful.

The Photographic Times—This is a star number in the matter of illustration, several of the pictures being of exceeding beauty. Mr. D. G. Archibald has an article on the advisability of footing it when in search of pictures. He says, "photograph when you photograph, drive when you drive, wheel when you wheel, but, if you are serious in photographing, do not deceive yourself into thinking that you can do all these things well at one and the same time." To which all thinkers will agree. Mr. R. Hitchcock gives a treatise on "The Action of Light on Silver Chloride," a subject of which he speaks with the authority of an original investigator.

Wilson's Photographic Magazine—The October issue is largely devoted to a consideration of professional photography from the business side, but there are several articles of general interest, among which is to be noted an account of the manufacture of plain salted paper, giving very useful details as to the means of modifying its tone. A reproduction from "photography" of Professor Namias' paper on the "Photographic Uses of Potassium Permanganate" is worthy the careful consideration of all photographers.

FOREIGN JOURNALS.

Il Dilettante di Fotografia—The August number devotes much of its space to matters connected with printing, among the best of which is an article by R. Defays, taken from L'Objectif, strongly advocating liquid ammonia (twenty per cent in water) as a fixing bath. The writer claims for it the following advantages: Rapid solution of the unchanged silver; no weakening of the image during fixation; pure whites, providing the bath be often renewed; a shorter washing, and most important of all no fading of the print with time. Plates can be fixed in the same manner.

Der Amateur Photograph—The most important article in the September number is on the subject of slow or tank development. The method of dealing with films is dealt with in detail and is illustrated.

The Bulletin of the French Society of Photography is chiefly devoted to a record of the proceedings of the societies. One item of considerable interest is to the effect that the German Association of Engineers is about to publish a technical dictionary in French, German and English, and that the French Society of Photography has consented to help in the photographic section. This is good news to readers of the foreign journals.

The Amateur Photographer (English)—"Toning Lantern Slides by Substitution," by G. E. Brown, is one of the notable papers of the month. A well illustrated article on "Lighting," by Barker North, is also interesting.

The issue of September 28th contains the first criticisms on the London Photographic Salon. In view of the somewhat bitter controversy waged in several of the American photographic journals as to the merits or otherwise of the New York school of art photography, it is interesting to read the following criticism of their exhibits:

"In the present article it is not our intention to criticise the pictures in detail. Earliest in the catalogue the works are for the most part from some leading American workers, and for the presence of these this year the public have mainly to thank Mr. F. Holland Day, who has brought to this country a considerable collection of these works. Mrs. Gertrude Kasebier, Mr. Clarence H. White and Francis Watts Lee are already well known in this country. To their excellent and talented company are now added other workers such as Frank Eugene, E. J. Steicher, F. C. Baker, Miss S. J. Eddy, Mrs. Sarah C. Sears, Mrs. Elise Cabot, Mrs. William E. Russell and many others. The American work contributes a rather distinctive note to the Exhibition as a whole. There is a certain similar character which pervades most of them which suggests the existence on the other side of the Atlantic of a school or cult which, consciously or not, is influenced by one or two leaders, and if to most English observers there appears a technical incompleteness and total suppression of almost every quality which we customarily associate with a photograph, for the production of something which is not quite self-explanatory or convincing, let it be remembered that the violence of a revolution is generally in proportion to the degree of evil which it seeks to reform, and from the standard of the more intelligent photographer, not only in Great Britain but elsewhere, there is a very large amount of photography in America of the commercial and everyday character of such a vulgar—we had almost said brutal—character that an antidote of the most searching kind was necessary. Mr. Alfred Stieglitz, who has long held the premier position amongst American pictorial workers, is, in

consequence of ill health and pre-occupation, not exhibiting this year. His work has always appeared most closely allied to the best British work, and therefore holds a unique position; but the American work in London this year, including the contributions of Mr. F. Holland Day himself, is to us exceedingly interesting, even as the pre-Raphaelites and many other offsprings of reaction were interesting and powerful for good."

BOOKS.

"Ozotype," by Thomas Manly. (Amateur Photographer Library, No. 20, Hazell, Watson & Viney, London). This book is disappointing. While entering somewhat deeply into the complex chemistry of the modified carbon process known as Ozotype, it fails to give the formula for the sensitizing solution which is the essential element in the process, and which, being patented, is no longer a secret. It also fails to describe the method of making the pigmented plasters, which are equally necessary and also no secret. The reason for these omissions is obvious; the sensitizing solution and the plasters are on the market. This may be natural, but it is scarcely fair to the purchaser of the book. In so far as the description of the manipulations are concerned, they are copious, and the reader will hardly fail to obtain the impression that the working of Ozotype is not to be entered on with a light heart.

"The Carbon Process" (No. 17 of the *Photo Miniature*). With no more theory than is necessary to make intelligent the practice, we have in this little book one of the most succinct and eloquent descriptions of the carbon process ever published. While short in statement, it excels many more pretentious works in the accuracy and copiousness of essential details. It concludes with a description of Ozotype, and gives what the author of that process in his work fails to do, a formula for the sensitizing solution.

"Handbook of Photography in Relation to Crime" (*"Handbuch der Kriminalistischen Photographie," von Friederich Paul;* Published by J. Guttentag, Berlin.) This is a work of a hundred pages, written in German, and well illustrated and printed. The opening chapters deal in a very thorough manner with the photographic methods of establishing the identity of criminals, and Bertillon's system is described in detail. Then follow descriptions and illustrations of the apparatus to be used in making photographs of those found dead *in situ*. The detection of forgery by photographic methods and the photographing of the implements of crime are also dealt with. The book is of undoubted value to those engaged in such investigations. It is greatly to be regretted, however, that it is not provided with an index, or even a table of contents.

Fisher, Unwin & Co., the London publishers, will shortly produce a romance by the well-known local writer, Leigh H. Irvine. The story is placed in the South Sea Islands, and critics who have read the manuscript declare it to be exceptional in the brilliant treatment of the strange country and its people.

PATENTS.

Daniel Argerbright, Troy, O., print washer.

Chas. F. Goddard, Chicago, Ill., panorama printing frame, provided with rollers in either end upon which the paper is wound, similar to film in a film camera.

Geo. de Geofroy, Paris, magazine camera.

John A. Morse, Chicago, focusing device for cameras. By this ingenious device the image, when properly focused on the finder, is also properly focused on the plate.

R. J. Hagey, Philadelphia, exposure scale.

L. M. Pierron and H. N. Miller, Milwaukee, Wis., subsidiary lens placed in the front of the camera lens to distort pictures, something similar to the cylindrical mirror, often seen producing the effect of a very tall or very stout person on its being reversed.

Morris Bull, Rochester, N. Y., improvement in plate holders, wherein a double light-excluding device is provided, preventing the entrance of light through the slot where the slide is inserted, even should the slide be inserted cornerwise, as is often the case, resulting in a spoiled plate.

H. E. S. Singleton, San Francisco, Cal., focusing hood for camera.

Max Jurnick, Demorast, N. J., roll-holding camera. In this instrument the roll-holder is of such a design as to swing out of the way inside the camera and allow of the use of a plate in the usual manner, or to allow the image to be focused on the ground glass, and when this is complete a turn of a key brings the holder back in position again, ready to receive the impression.

NEGATIVE BY W. A. CARRUTHERS SAN JOSE.

OUR MONTHLY PORTRAIT.
STUDY THE LIGHTING AND POSING EFFECTS.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

HOLIDAY THOUGHTS.

This being preparation time for the holidays, a few suggestions as to the making of photographic souvenirs may not be amiss. Many pretty presents may be easily made by the amateur photographer who will exercise a little care and ingenuity. There are numerous chances for Christmas cards, picture frames, calendars, and a whole lot of other useful and ornamental remembrances.

Some of the photographic stock dealers keep an assortment of different colored papers in sheets, easily adaptable to artistic effects. This paper can be mounted on a heavier card, either plain or in some design, as the fancy may dictate, together with a print of some scene in which the particular person to whom it is to be sent may be interested — say some suggestion of the past season's outing. I'll warrant that it will be more acceptable than a more costly present.

Picture frames are not so easily made, but may be put up in this manner:

Take a heavy piece of card of the size desired — the bottom of a box will do — and, say you want to make an opening for a 4 x 5 print, by drawing diagonal lines from corner to corner you find the center, should that be desired. A piece of 4 x 5 glass is handy to mark off the opening, which should always be a little smaller than the print. With a sharp knife, aided by the glass form, cut the opening.

This cardboard shape can then be covered either by a piece of art paper, as mentioned before, or with leather or cloth, allowing one inch on each side to lap over the back. The opening will now be covered. With a sharp knife cut a straight line from corner to corner of the covered opening and lap the paper or leather over to the back. This makes a clean finish.

Now cut a card slightly smaller than the shape to be used for the back. Some suitable stuff for this purpose, surfaced on one side, can be found in the stores. Cut a slit one-quarter of an inch wide and a little longer than the opening in the back, in a position one-half an inch from the opening on either end or side. Paste on the back, and you have a frame in which any print may be inserted and which is different from the store frames. Of course, any sort of inscription or decoration may be added to the front.

As to cards and calendars, the use of flowers, ferns and berries, grouped and mounted on a large card and photographed, can be made very effective. The regular holiday sayings may be put on if several friends are to be favored. Small calendar pads can be purchased at the stationery stores, and these may be stuck on the print afterward.

Use a slow plate for this sort of work. Make Velox prints and mount them on a card with a plain margin.

There are innumerable variations to these thoughts, and they will suggest themselves to one who desires to make something inexpensive.

PHOTOGRAPHING BY LIGHT FROM VENUS.

Dr. William R. Brooks, director of the Smith Observatory at Geneva, N. Y., has succeeded in photographing objects solely by the light from the planet Venus. The experiments were conducted within the dome of the observatory, so that all outside light was excluded except that which came from Venus through the open shutter of the dome. The time was the darkest hour of the night, after the planet had risen, and before the approach of dawn. The actinic property of the light from Venus was much stronger than anticipated, the photographic plates being remarkably clear, intense and fully timed. The experiments will be continued every clear night. Dr. Brooks was an early worker in photography, and has used it for many years in his astronomical researches.

Lassen & Bien, the opticians and photographic supply dealers, have recently issued a neat little booklet with the suggestive title, "Read, Learn, Inwardly Digest." The fact is mentioned that a ready-mixed ten per cent solution of bromide is being given away at their store.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

USE A LITTLE PRINTER'S INK.

This is a plain business talk. There is not much to be gained in telling a professional photographer at this time of the year that he can do this or do that by using somebody's solution for acquiring certain tones on his paper, or how he can make a thousand dollars by placing his prints on a different shade and size of mounts. Whether his pictures in the salon will look better in a dark green or a brown frame, or by using a shadow-box is a matter with which he himself must deal.

But this is the time of the year when rainy days are the rule and the photographer can find time to do a little thinking and scheming. Even if the days are not rainy it is certainly a good business investment to devote a little time to thinking of how more money can be gained from the customers served during the months before.

In all business houses nowadays the manager must be "up to date." He must watch his competitor whether he be in a direct line or not. Take the clothier, hatter, grocer, or what may be his trade, if he is "alive" he keeps track of his customers. The photographer cannot afford to be lax in this regard. For the holiday season there is the daughter who may want a picture of her mother or father to send to a relative in another State; the father may desire a number of photographs of the home as a remembrance to the old folks, sisters or brothers.

Now, a little expenditure of time and less of money in printer's ink, will remind all these persons that you are still in business and will be pleased to serve them in any capacity, even if it be only a few extra prints of some negative which you have made some time before.

The photo-engraver is able to help out the photographer in many ways. For instance, a choice photograph may be half-toned and printed in such a manner that the novice would think it a photograph. The print should be mounted on a dark card with the announcement printed under it.

The greatest mistake a man in business can make is to quit letting people know he is on the earth because business is dull. All trades have their dull seasons, but a successful tradesman does not quit advertising when he has a chance of making two per cent over and above the cost.

It is to be supposed that all photographers realize the necessity of keeping the addresses of their customers, this being easier than in some other professions, and presuming that they have them, there is no better time than the present to send out cards, photographic or otherwise, to those same people for whom you have worked.

A SPLENDID EXHIBITION.

Art lovers and photographers should not miss the exhibition now under way at the art store of William Morris, on Sutter street. It is a splendid array, and embraces the work of many of the leading artists of the world.

LATE PATENTS.

H. W. Hale, Ridgewood, N. J., roll-holding camera.

G. W. Hall, Hermm, Me., clamping socket and support for cameras.

Charles Truxler, Akron, O., film developing apparatus.

Jos. Gunt, Leichhardt, New South Wales, focusing device for cameras employing a mirror at an angle of forty-five degrees.

A GOOD TRIMMER.

The Coes Cutting Board, advertised on another page, is manufactured by Loring Coes & Co. of Worcester, Mass. This firm has made the manufacture of knives their sole business for sixty-five years. The knives on this machine are the best it is possible to produce, and are made of the highest grade of material and by the most competent labor. With each cutter they send directions for its proper preservation while in use and hints as to the work that may be done with it. A souvenir, which will be sent if CAMERA CRAFT is mentioned, is both useful and interesting to all photographers.

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

INTENSIFICATION AND REDUCTION

To obtain satisfactory results in all intensification and reduction processes it is essential that the negative under treatment be absolutely free from hypo. If in doubt it is better to refix and thoroughly wash before proceeding with the intensification or reduction. Bichloride of mercury is the universal, and, I think, the most satisfactory intensifier to be had. A negative immersed in a saturated solution of this chemical will gradually bleach through the entire film until the normal brown or black color becomes nearly white. On examination a great increase in deposit is noticed, but the image appears to be less opaque because of the whiteness of the bleached film. To produce the desired strength or opacity it is necessary to change this white color to a black or brown, and this is easily effected by various reagents, among which are ammonia, sodium sulphite, or any strong developer giving a black deposit, for example, hydroquinone.

WITH AMMONIA

This method is, perhaps, most general. The result is accomplished by flowing over the bleached negative a diluted solution of ammonia, .880 (one dram to four ounces water), the result being a brownish black image of uncertain stability and a tendency to surface iridescence. Very thorough washing is necessary when using this reagent.

WITH SODIUM SULPHITE

This reagent gives less intensity than ammonia, but is safer to use, and works more uniformly, and there is less necessity for prolonged washing between bleaching and blackening of the plate. A ten per cent solution of sulphite will be found most satisfactory. If the sulphite fails to blacken the plate it is probably due to too much alkali in the solution, and a few drops of sulphuric acid will remedy it.

A REDEVELOPMENT METHOD

The plate, after bleaching with mercury in the ordinary way, is thoroughly washed and then placed in a developing tray and flooded with any normal developer. It will rapidly gain density and come from the developer looking more like a correctly exposed and developed plate than any other method I know of.

A strong hydroquinone developer will be found excellent for this purpose. Again, let me repeat, that the plate must be thoroughly washed; first, free from hypo, then the mercury must be thoroughly eliminated, and, lastly, the plate must be well washed after blackening.

AMMONIUM PERSULPHATE

Of the reducing agents in use, ammonium persulphate is the only one I will mention. Its peculiar advantage lies in the fact that it attacks the denser portions of the negatives in preference to the half tones and shadows. Until recently it has been difficult to obtain the pure salt in this country, and many workers who have failed to secure results have given it up in disgust. Much of this trouble undoubtedly arises from the fact that the salt sold as persulphate, when it was first placed on the American market, was simply sulphate, which is inert as far as reducing power is concerned. At this time, however, there should be no difficulty in obtaining the genuine article.

Fifteen grains of ammonium persulphate to each ounce of water forms a convenient working solution. When the plate is sufficiently reduced in this, immerse the negative in a ten per cent solution of sodium sulphite for a few minutes to check the action of the reducer and then wash well.

COPYRIGHTS

It will be well for photographers who copyright their photographs to look into the copyright laws more carefully.

A recent decision by a New York court was rendered against a prominent photographer who failed to place his initials before his name on his copyrighted picture. The Photographers' Copyright League of America is an association organized for the protection of the photographer's rights in his work, and deserves the co-operation and support of all photographers who have pictures of value which they wish to protect from piracy. Those who desire to join the League may do

so without charge, by writing to the secretary, Mr. Charles E. Bolles, 244 Fulton Street, Brooklyn, N. Y., who will send concise information on the copyright laws pertaining particularly to the protection of photographer's rights. A membership in this association would, undoubtedly, have saved the New York photographer his copyright.

REVIVAL OF STEREOSCOPIC PHOTOGRAPHY

Many of the older workers remember with delight the popularity of stereoscopic views twenty years ago. That this beautiful and entertaining branch of photography is rapidly coming to the front again is cause for congratulation. The canvasser of "stereoscopic views" is abroad in the land and millions of "stereo" pictures and thousands of "scopes" are finding their way into American homes.

A general agent for a large eastern stereoscopic view publishing house is authority for the statement that this year's business will prove the largest in the history of the house, which has been established thirty-five years. Again, I am informed by camera manufacturers that the demand for stereoscopic cameras is rapidly increasing. This means that the amateur is taking hold, and we all know that the wonderful advance and development of photography is directly due to the stimulus that the millions of amateurs have given the trade.

In England stereoscopy is an important branch of the trade, and in France and Germany binocular cameras are listed in all dealers' catalogues as prominently as monocular instruments. In this country alone has this beautiful branch of photography fallen behind, but now that the American amateur has awakened I can see the beginning of a tide of popularity for this entertaining work that will sweep the country.

To all who have passed the "press the button and somebody else do the rest" period and are honestly interested in the art, stereoscopic photography will open up a field of such alluring interest that I feel sure the single lens camera will be relegated to the shelf to be replaced by the binocular camera and the stereoscope.

THE OREGON CAMERA CLUB EXHIBITION.

The Sixth Annual Print Exhibition of the Oregon Camera Club, which began on October 29th and will last to November 3d, is one of the best yet held. All of the work exhibited shows improvement over last year, and the attendance has been large and enthusiastic.

All the exhibits are tastefully arranged and grouped, and hung so that all receive a good, clear light. Prominent among them are those of Harry G. Smith, Vice-President of the Oregon Camera Club, and winner of the Judd Cup for the best general collection of six pictures. These present various subjects, all of which are successfully treated. Perhaps the most striking is "The Old Oaks at Ross Island," with its rich effect in sepia and beautiful, soft tones, catching the beautiful foliage of the trees as they overhang the river bank. One of the best is "Safe," showing the well-posed figures of a ragged youngster sleeping in a corner, guarded over by a faithful dog, who seems to glory in his responsibility. "The Last Glow" is a sunset on the Columbia, with strong light and shadow contrasts and fine cloud effects.

The most striking photograph in the exhibit is "Stranded," by F. A. Shogren, showing the ship "Glenmorag" in the background, while in the foreground is most effectively posed the dark figure of a woman gazing seaward at a gathering storm. The bleakness and desolation of the scene is brought out strongly, and the glaring seashore faithfully reproduced. This won for Mr. Shogren the Excelsior Cup, offered for the best landscape containing clouds and water, and all the requirements for technique, art and composition were fulfilled in this most daring and successful piece of photography.

The clubrooms are handsomely decorated, and visitors are made welcome by reception committees. The committee in charge of the exhibition is A. Garvin, chairman; Mrs. Charles E. Ladd, F. L. Selleck, Mrs. G. F. Tucker, F. A. Routledge and Miss M. Ainsworth.

NOTES.

A new dry plate has been placed on the market by Kirk, Geary & Co. of Sacramento and San Francisco, under the name of the Pacific Plate. The new-comer appears in one speed only, corresponding to that of the Cramer Crown. It is remarkably clean, brilliant and uniform, and develops easily, with little inclination to fog in prolonged development.

It is attractively packed, especially for Pacific Coast and export trade, and is coated on light but very tough glass, making it particularly desirable for the magazine camera. It is announced that the new plate will also be supplied in orthochromatic, non-halation, lantern slides and transparency brands, as well as in an entirely new product, a special, backed, non-halation plate, either plain or orthochromatic.

The Pacific will be energetically introduced and demonstrated throughout the Pacific Coast, and bids fair to divide the honors with the products of eastern manufacturers.

Mr. Frederick J. Church, manager of the Honolulu Photographic Supply Company, and Miss Elizabeth Steyn were married at the Waikiki residence of W. R. Castle in Honolulu on October 12th.

The winners of the Ray Filter competition, given by Messrs. Burke and James of Chicago, have been announced and are as follows:

Class 1—Landscape with cloud effects.

First, Henry Fair, Lewiston, Idaho; second, W. W. Bissell, 97 Main Street, Rochester, N. Y.; third, Gus Borlen, 5127 Wentworth Avenue, Chicago, Ill.; fourth to tenth (not arranged in order of merit), Robert D. Stevens, 40 Mahl Avenue, Hartford, Conn.; Arthur Anderson, Wahoo, Neb.; J. W. McCaslin, 5747 Drexel Avenue, Chicago, Ill.; John B. Watson, Warsaw, Ind.; Chas. T. Springman, 1024 Fourth Avenue, Detroit, Mich.; Frank E. Foster, Iowa Falls, Ia.; Adolph Dittner, Fort Dodge, Ia.

Class 2—Flowers.

First, W. F. Luick, 180 Ogden Avenue, Milwaukee, Wis.; second, C. T. Bush, Dubuque, Ia.; third, A. W. Rice, Haywards, Alameda County, Cal.

Charles P. Magagnos, the dealer, and Rev. W. H. Fulton, both of Alameda, have recently been granted a patent on an improved view finder.

The following item concerning one of Oregon's noted amateurs was clipped from the Walla Walla (Or.) *Union:*

"Next to Wagner's band, the principal attraction during the fair was the war dance of the Umatilla Indians, who came over from Pendleton under the care of Major Lee Moorhouse, and donned their feathers and war paint to entertain the visitors inside the main building. They gave two creditable performances, and it rather made some people wonder how near it came to being the 'real thing.' There doubtless were men in the audience who in days gone by preferred to watch an Indian war dance from a pretty safe distance."

We regret very much that the copyright credit was omitted from the portrait of Paderewski, by Marceau of Los Angeles, printed in last month's issue. As the picture is fully protected, the public is warned not to reproduce it in any way.

The Bausch & Lomb Optical Company have been awarded a gold medal at the Paris Exposition for the best lenses, shutters and other accessories of American manufacture. This award is quite a surprise to them, as they made no exhibit at the exposition, the medal being awarded for the superior quality of the lenses, shutters and photographic accessories of the Bausch & Lomb Optical Company's manufacture used on the cameras exhibited by the various camera manufacturers.

J. E. Hare, the *Examiner* photographer, has established himself in a private studio at 420 Montgomery Street, where he will entertain his friends.

Advices from New York, received by CAMERA CRAFT, contain the news that Colonel Marceau is planning to open an establishment the like of which will open the eyes of the Gothamites. It is said that the Colonel has purchased twenty thousand dollars' worth of antique furniture for the new studio.

The factory of the Platinum Photographic Paper Company of St. Paul, Minn., was destroyed by fire on September 30th. Work is now rapidly proceeding on a new building. Notice will be sent to all consumers as soon as the plant is again in operation.

The October edition of CAMERA CRAFT was sold out on the twelfth of the month.

Jessie Bartlett Davis was lifted into the seventh heaven of delight during her recent visit to Los Angeles, the cause being a number of particularly fine studies by Marceau. The singer said that she was never better pleased with herself than when she first saw the photographs.

George W. Harris, who has for some time been attached to Bushnell's San Jose gallery, accompanied the Mystic Shriner's pilgrimage to the Hawaiian Islands. During the trip Mr. Harris represented the *Examiner*.

A large carbon of George Steckel of Los Angeles has been attracting much attention at the Camera Club. The picture was made by R. H. Furman, the famous carbon worker, and is a speaking likeness.

A. Putnam, official photographer for the Southern Pacific, spent several days in San Francisco last month.

Kirk, Geary & Co. of Sacramento and San Francisco have recently issued a neat booklet entitled "New Mountings." The booklet describes their new mounting boards.

Miss L. Nora Quinlan, who has been associated with Bushnell's photographic studio for some years, is lying dangerously ill at her home from nervous prostration.

CAMERA CRAFT will, in its next issue, reproduce several pictures by Frank Schumacher, the subjects being newsboys, both black and white.

FOUR NOTED PROFESSIONALS
WHO DIVIDED HONORS AT THE LAST CONVENTION.

Frank Moore, Atlanta.
Geo. E. Anderson, Cleveland.
Will Moses, Louisville.
F. E. Schumacher, Los Angeles.

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The demonstrations during the month of October were particularly valuable to the club members present. The first one was by Mr. Charles Neilson, the subject being "Composition." The second one was by Prof. O. V. Lange, with the same subject but upon different ideas. As both of these demonstrators are represented in CAMERA CRAFT along the same lines, more comment is unnecessary.

The following card has been issued by the Lantern Committee:

IMPORTANT.

Our annual contribution to the Lantern Slide Interchange will have to be sent East in the very near future.

For nine years we have enjoyed seeing the sets of other clubs that have been shown in our rooms. In order to continue this it is necessary for us to furnish a set of not less than seventy-five slides.

It is our desire to have as many members as possible represented, and at the same time have the work such as will compare favorably with that we receive from the East.

We particularly request you to bring some of your negatives, from which the Lantern Committee will make slides and submit at some of our slide tests. All negatives will be returned in good condition four days after being received.

LANTERN COMMITTEE.
A. G. MCFARLAND,
W. E. GOODRUM,
M. P. GOLDSMITH,
GEO. W. REED,
D. H. WULZEN, JR.
W. E. PALMER, Secretary.

The first slide test of the season will be given by the committee on November 6th, commencing at 8 P. M. sharp. After the exhibition the club will adjourn to "Newspaper Corner," where space will be reserved, so that members can watch the election returns.

THE LOS ANGELES CAMERA CLUB.

Since moving into their new quarters, the members of the club seem to have taken an added interest in photographic matters. The most desirable lockers have already been rented, while dark rooms, bromide room and portrait gallery are much in demand. Some good portraits and excellent bromide enlargements have been made by different members.

At the last regular meeting Mr. A. C. Moore gave an interesting talk on "Old Mexico," the lecture being illustrated by slides made from photographs taken by himself and wife on a recent trip to that country. Dr. Johnson loaned to the club some beautiful slides from photographs made by himself in the higher Sierras. The remainder of the evening was taken up in discussion of questions contained in the "Query Box."

The next official outing of the club will have for its objective point San Fernando, and it is expected that many of the members will take advantage of this opportunity to take the beautiful old mission and its palms.

Mr. Geo. N. Crowe has offered the club a cash prize for the best landscape photo, to be taken and submitted before the fifteenth of December, and from present indications a large number of fine prints will be submitted.

The date of the formal opening of the new rooms has been set for November 16th, and the several committees are hard at work preparing for the occasion.

SAN DIEGO CAMERA CLUB.

The last month has been one of unusual activity in our organization. The spirit of zeal and ambition to acquire achievements has never before been so great, and many real works of art have been hung upon our walls.

At the last regular meeting fourteen new members were admitted and several more applications are now on file, which shows the general approval which our work is eliciting.

Much commendable interest is shown among members who have learned to make lantern slides, and each one of the monthly exhibitions shows improvement over the preceding one.

Mr. C. H. Clark has on exhibition in our rooms a fine lot of platinum prints, which are attracting a great deal of interest.

The Colorado Camera Club will hold its third annual salon in the ballroom of Major Wm. Cook Daniel's residence, from November 21st to the 24th. It is expected that the salon will be a social event as well as a fine photographic exhibition.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, DECEMBER, 1900. NO. 2.

THE CHILDREN OF CHINATOWN.

BY ARNOLD GENTHE.
WITH ILLUSTRATIONS BY THE WRITER.

"NO PICTURE."

SOME one has said that the chief difficulty in obtaining good photographs in Chinatown, that most picturesque quarter of San Francisco, undoubtedly lies in the fact that the Chinamen have a very pronounced aversion to the camera. They believe that to be photographed by a white man means bad luck for them, and as soon as they see the ominous black box of the "White Devil" they run, protecting their faces with upheld arms. It might comfort them to know that the bad luck is mostly on the side of the enthusiastic camera fiend, who bravely and indiscriminately snaps his camera as they run angrily away, and who does his part of the swearing later on in the dark-room. But evidently they consider the man with the camera always a dangerous enemy, who has to be carefully avoided, a rather flattering tribute to the photographic ability of the many amateurs who make Chinatown their hunting grounds for scenes picturesque and novel.

Even the children are taught to run away from the black box, and it is indeed amusing to see the youngsters disappear with almost supernatural rapidity at the approach of a camera, be it a pocket kodak or an instrument of larger proportions. Even the very little children soon learn to know the camera, and let themselves willingly be carried to a place of safety by their big sisters and brothers.

The superstitious fear and, on the other hand, the bad light—the bright sunlight with the impenetrable shadows in the narrow alleys giving hard, contrary effects—make the photographing of "Young China" a rather difficult

but not the less interesting task. Indeed, I do not know of a more picturesque subject for the hand camera than the "Children of Chinatown," with their clear and smooth olive skin, their mysterious black eyes, and the rich silk dresses worn on festival occasions with such natural grace and wise dignity. There is one easy way of securing good negatives of Chinese children, and that

THE TOY PEDDLER AT NEW YEAR'S.

is by simply going to the Mission and have them pose there in the garden. But these photographs lack, to a certain degree, the pictorial and also the human interest which pictures made on the street without any posing may possess.

A few remarks as to how to obtain the best results may be of interest to those who do not mind using a couple of dozen plates or films to secure one or two good pictures. Any hand camera will answer the purpose so long as one knows how to handle it. A fixed focus box is, of course, the easiest to manage, especially as it can be readily hidden, but it ought to be fitted with a modern anastigmatic lens of good depth. Use a 5x7 lens for a 4x5 plate, stopped down to f 16. A similar lens is also necessary for a focusing

camera, as mistakes in judging distances do not matter so much with a lens of very good depth. It is of the greatest importance that the photographer be perfectly familiar with the qualities of his lens. He must know how short he may make the exposure in a certain light, and especially must he know what angle his lens comprises, so that without looking at the ground glass he will have a fairly good idea of how much of the scene before him will get on his plate. In this most photographers fail. They rely too much on the finder, which seldom has the same angle as the camera objective. I prefer to work entirely without a finder. It is much better to keep your eye on what you are going to photograph than to try to locate your moving subject in the small, dinky finder. It requires but little practice to become so familiar with the lens that one knows exactly how much one gets on the plate at a given distance and how large the different objects will be represented. Take a couple of walks with your camera and look through it and see how much of the angle of your lens is utilized on the plate at various distances, and your eye will soon become an absolutely correct finder. You will learn by much practice that it is a mistake to hold the camera as low as a box provided with an ordinary finder necessarily requires.

A great deal of attention must necessarily be paid to the light. One must correct the glaring whites and inky shadows which a great many Chinatown pictures show. If the exposure has to be made on a clear, sunny day, the plate ought to be developed with a very diluted metol developer, which will bring out the detail in the shadows before the high lights are too dense. The best light for Chinatown is on a gray day, with the sun just about to appear. Persulphate of ammonia will be very efficient in producing more harmonious tone values.

"LITTLE MOTHER."

It is not at all sufficient,

FIRE-CRACKERS.

however, to keep your eye on the figure you intend photographing and to watch the effect of the light. You have, at the same time, to look for the background against which the figure will show. An otherwise good composition will be spoiled by a spotty background, or by a sign advertising "The Beer That Made Milwaukee Famous." Chinatown is a part of San Francisco, and the signs, so prominent a feature of the city streets, also spoil this picturesque quarter.

Of almost greater importance than the knowledge of how to handle the camera is the amount of truly Christian patience which the worker must possess if he wants to get a group of children that, as a composition, will have some pictorial value. It may be necessary to have to wait at a street corner for hours before you see a picture worth while taking, but when the good moment has arrived, be ready and act quickly, and try and hide your satisfaction at having made a good photo without their knowing it. Do not poke your camera triumphantly into the faces of your unsuspecting victims, as I have often observed people doing. In the first place, you may not have on your plate the picture you want at all, and then it is a small merit, indeed, to make the inoffensive little Mongolians feel uncomfortable. Rather try not to be seen by them at all. In fact, I think it is only the photographer who understands the art of making himself invisible who will obtain pictures in Chinatown that will have artistic value.

It is infinitely better to waste a lot of films and plates and finally get a simply composed picture, as, for instance, the one of the "Toy Peddler,"

A BUSY CORNER AT NEW YEAR'S

ON THE SQUARE.

than to pose the children (in case they could be induced to do so at all by the generous distribution of ten-cent pieces) and have them look at the camera with an unnatural or frightened expression that would destroy all the charm and grace only to be obtained by a negative stolen, as it were, while the unsuspecting subjects are in the enjoyment of some innocent prank conceived by a mind wholly free from the fear of the ever-present black box in the hands of the inquisitive amateur.

A DOUBTING THOMAS.

It is a pity that the camera cannot give an idea of the tastefully combined and exquisitely delicate colors of the costumes worn by the children on festival days, as it is then the proud father spends his money with great prodigality to procure the lavishly embroidered suits so pleasing to the Oriental eye. This is to be regretted all the more as it leads photographers to tint their otherwise good photographs with violent aniline colors, thereby giving an absolutely wrong and barbarous impression of what in reality is a thing of rare beauty.

In the Days of the Amber Sun.

Sad is the world; * Ja-et-ta plays
His pranks no more; the Autumn days
Are come; the hills are wrapped in haze
And mystic gloom;
The manzanita's berries fall,
The buckeye drops its gray-green ball,
And soon the gods will e'en recall
The tar-weed's bloom!

High up—so very, very high,
A speck is all one may espy—
Lone tenant of a toneless sky,
The buzzard sails;
The wind stirs not the grass nor trees,
The flow'rs are gone—the birds—the bees—
The earth lies wrapped in reveries
And Heaven's light fails!

Elwyn Irving Hoffman.

* The Indian name for the Rain-Man.

In the Days of Forty Nine

With a short sketch of Charles Nahl

By Carl E. Ackerman.

FIFTY YEARS IS A LONG PERIOD IN THE HISTORY OF ANY LAND, BUT FIFTY YEARS IN CALIFORNIA MEANS CENTURIES AS COMPARED WITH THE AGE OF OTHER COUNTRIES. AS THE TRAVELER OF 1900 RECLINES WITH LUXURIOUS EASE IN THE GAUDY PALACE CARS OR LISTENS TO THE STRAINS OF CLASSIC MUSIC ON THE OCEAN GREYHOUNDS, IT IS EASY TO FORGET THAT IT WAS BUT A GENERATION AGO THAT PEOPLE PERISHED BY THE SCORE IN A VAIN EFFORT TO REACH THE GOAL TO WHICH THE GIANTS OF MODERN CIVILIZATION NOW SPEED IN AN ALMOST INFINITESIMAL PERIOD OF TIME. TO THE TRAVELER IN THIS, THE EVENING OF THE NINETEENTH CENTURY, THE FOLLOWING PAGES ARE DEDICATED. AS THE IMPRISONED GENII, STEAM, SENDS HIM WITH CONSTANTLY INCREASING SPEED TO THE REUNION OF THE HAPPY FAMILY IN THE HOLIDAY SEASON, LET HIM PAUSE FOR A MOMENT TO THINK OF THE STRUGGLES OF FIFTY YEARS AGO. AS HE GLANCES OVER THESE PAGES CULLED FROM THE SKETCHES OF AN ARTIST OF A HALF CENTURY AGO, LET HIM CONSIDER THE DIFFERENCE BETWEEN NOW AND THEN—THE CHRISTMAS OF 1849 AND THE CHRISTMAS OF 1900.

For many years visitors to the State capitol at Sacramento have been attracted by two immense and ancient canvases which hung in an obscure and miserably lighted portion of the immense building. The better preserved of the canvases portrayed, with excellent drawing and brilliant conception, the trials besetting the voyage across the deserts in the early days. The other canvas spoke eloquently of the ravages of time and neglect, yet was fascinating in its quaint, old-time presentation of mining life fifty years ago. Today the visitor will look in vain for his old-time friends. The space occupied so long by these mementoes of early times now shines out brightly against the walls, prematurely aged by the neglect that seems part and parcel of the treatment meted out to all public buildings. An unfeeling and inartistic State government refused once too often to purchase the historical paintings, and they have passed forever out of the possession of the State.

Mrs. Jane Stanford, the mother of Stanford University, purchased the

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CHRISTMAS TRAVELERS IN '49.

THE UPPER ILLUSTRATION IS FROM A SKETCH MADE BY CHARLES NAHL IN 1850. THE LOWER ILLUSTRATION IS FROM A PHOTOGRAPH OF ONE OF THE GREAT PAINTINGS WHICH HUNG IN THE CAPITOL, AND WAS RECENTLY PURCHASED BY MRS. STANFORD. IT WILL BE NOTICED THAT THE ARTIST SIMPLIFIED THE COMPOSITION IN THE FINISHED PICTURE. THE PHOTOGRAPH WAS MADE ESPECIALLY FOR THE CHRISTMAS "CAMERA CRAFT" BY MR. W. G. WOODS, AND IS THE FIRST EVER MADE OF THE HISTORIC PAINTING, BECAUSE OF ITS LOCATION WHILE IN THE CAPITOL.

paintings, and henceforth they will hang on the walls of Stanford, there to remind the youth of California of the days of '49. The story of these pictures is known to but few, and their removal from the capitol was attended with but little comment, yet they were painted nearly fifty years ago by an artist whose work to this day forms the only coherent portrayal of life as it was when California became known as the Golden State.

Who is it among the ranks of the pioneers who does not remember that quaint and rugged character, Charles Nahl? What art gallery in the West but

THE PROSPECTOR.

holds some of his work? The name of Nahl is associated with Western art, and as the years pass by his memory will be more and more endeared to those who still are linked to the days when every man stood alone to fight the battle of life. Those who knew the artist when he was still alive often wondered at his presence in the turbid life of the far West—the life that brought the extremes of the social plane side by side in the land where no one but an orphan child asked or was granted protection. Yet the motive actuating Nahl in leaving his German home and his artistic studies under European masters was not an ordinary one.

THE SPLENDID TYPE OF EARLY CALIFORNIA HORSES IS WELL DEMONSTRATED IN THE TWO ILLUSTRATIONS ON THIS PAGE. HERE THEIR MERITS ARE DISPLAYED WHILE AT WORK AND AT PLAY. IT IS DOUBTFUL IF THERE IS IN EXISTENCE TODAY A DRAWING OF ANY CHARACTER WHICH PORTRAYS, WITH SUCH ACCURACY, THE SPLENDID SPIRIT AND GRACEFUL LINES OF THE HORSES OF OUR FOREFATHERS. THE LOWER SKETCH GIVES A CLEAR CONCEPTION OF THE DIFFICULTIES OF TRANSPORTING FREIGHT BEFORE THE ADVENT OF THE RAILROAD.

THE ROADS LEADING FROM SACRAMENTO, "THE EMBARCADERO," TO THE MINES WERE CHIEFLY FAMED FOR THEIR IMPASSABLE CONDITION. FREIGHTING WAS THEREFORE ONE OF THE MOST PROFITABLE OCCUPATIONS OPEN TO THOSE WHO DID NOT SEEK TO WIN FORTUNE IN THE MINES. THE FIRST SKETCH SHOWS THE CHARACTER OF THE TEAMS. THE LOWER SKETCH SHOWS THE NAHL PARTY CAMPING AT A RANCHERIA NEAR MARYSVILLE. THE VIVID MANNER IN WHICH THE SUBJECT IS HANDLED MAKES THE SKETCH ONE OF THE MOST INTERESTING IN THE COLLECTION.

Leaving their home in Castle, Germany, the Nahl family removed to Paris, so that the younger Nahl could pursue his studies. At the time of the revolution, in 1848, the young artist was under the tutelage of Horace Vernet, the famous painter of battle scenes. With the revolution went the Nahl fortune, and thus it was that the family, who were attracted by the golden stories from California, set forth from Havre and upon their arrival in New York had but very little with which to begin the battle. Nahl painted in New York, with in a few weeks, two paintings famous in the history of American art, "The Miser" and "The Spendthrift." With the proceeds of the sale of these two pictures the trip to California was taken by the way of Panama.*

SUNDAY IN THE MINES.
The painting made from this sketch is now in the Crocker collection.

During the long voyage Nahl amused himself by filling up his sketch book instead of his diary. Arriving in San Francisco during the spring of 1850 he went to Sacramento, and from there to Rough-and-Ready. The pioneers who remembered the artist's quarters at that time still describe the weird combination of junk which surrounded him. A suit of chain mail from the Thirty Years'

AN INCIDENT OF THE SACRAMENTO FLOOD.

*The sketches made by Nahl on the trip across the Isthmus in '49 are perhaps the only ones extant at this day, and will form a second series of illustrations in a succeeding issue.—EDITOR.

NAHL'S STUDIO ON BROADWAY. THE FIRST HOME OF THE OLYMPIC CLUB.

War occupied a prominent position in his workshop, while piled around it were gold scales, old blankets, dried apples, halberds and swords. After looking about for several weeks, the artist was victimized into buying a salted claim, and it was while working beside the rugged characters in this, the worst mining camp in California, that the artist's appreciation of early California types was developed. His actual experience made him thoroughly acquainted with the characteristics of the miners and, without doubt, influenced his work in after years.

Finding mining at Rough-and-Ready unprofitable the artist formed a temporary partnership with a sign-painter, thereby earning enough to open a studio in Sacramento. The sketches with which this article is illustrated were made on the various trips in California, and all of them bear the stamp of thorough familiarity with the subjects handled.

The sketches of the great Sacramento flood, one of which is reproduced, are the only ones known to be in existence. The rain commenced in November and continued more than half the time until February. During this time was recorded the largest rainfall in the history of California. The greater portion of the Sacramento and San Joaquin Valleys were flooded and most of the country population was driven to San Francisco. The favorable state of the Nahl finances induced the family to move to San Francisco, where a studio was opened on Broadway, between Kearny and Dupont. At that time this location was considered the best in town. A large shed was erected as a studio, and it was here that the two paintings which hung in the capitol for so long a time were painted. The studio became one of the points of interest to the young men of the town whose rendevouz became known as "Nahl's back yard." It was in this back yard that the Olympic Club was organized.

With this brief sketch of the life of California's earliest and best known artist the present article will close, leaving for future papers a more detailed description of thrilling experiences which beset the artistic worker of early days.

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LITTLE BEAR.

NIHILISTIC PHOTOGRAPHY

A TRUE STORY

BY THEODORE KYTKA

(*How the secret photographs were hidden.*)

Freezing and covered with snow I arrived late on Christmas eve, in the year 1881, at a tavern situated on a side street branching from the Universitat Strasse, not far from the Votive Church, in Vienna. This tavern was much frequented by students attending the medical, technical and art schools, who made it their rendezvous owing to its central location and the good quality of the wine sold there. A well-equipped fencing-hall, together with the kindness of the tavern-keeper, an exiled nobleman, made the place most popular. Indeed, on many occasions our friend, the tavern-keeper, extended the credit of the students far exceeding their meager allowance. For all these and other reasons the tavern was well patronized by the student element.

Entering the main hall on this particular Christmas eve, I found many seats vacant. Those of the students who had homes and relatives near Vienna were absent from their customary haunt, and the inclement weather assisted in decreasing the number of "mine host's" customers.

Crossing the main hall, I entered our den, a little room reserved for particular friends of the landlord. There I found, enveloped in a perfect fog of smoke, a few of my chums, who greeted me warmly and then resumed their animated discussion. The assassination of Czar Alexander II., which had been successfully accomplished by the Nihilists a few months previous, was the topic of conversation. At the time I speak of nearly every student's society contained a number of members more or less inclined to Nihilism, and I was not surprised to hear a discussion of this nature, for it was but seldom that

our little party was gathered under one roof that Nihilistic topics were not discussed.

The speaker, who had been addressing the other students when I entered, was a Russian hailing from Odessa and was not quite twenty years of age. He was attending the lectures of Professor Schnitzler, one of the most eminent physicians of that time, and for his age Ivan was considered one of the most brilliant students and linguists in our band. His parents, who were both wealthy and influential in Russia, noticing with alarm his inclination toward Nihilism in early youth, sent him to Vienna so that he might be removed from the influences of Nihilism, then widely spread throughout the Czar's domain.

Throwing my mantle over a chair, I took my place in the midst of this interesting group, who, with parents and relatives hundreds of miles away, conducted themselves like so many overgrown boys. The conversation continued during the whole of the evening, branching out into various topics—political, scientific, social—and it was nearly ten o'clock when the samovar, or Russian tea-kettle, was placed upon our table. A bottle of Jamaica rum and a tray full of rye bread and Swiss cheese completed the elaborate Christmas eve feast.

After drinking to our health, the little band of students was thrown into consternation when Ivan arose and said:

"My friends, this will be the last Christmas eve I will spend with you. Within a few months I will be of age and must enter the army of the Czar. There is no escape from it, and it will not be long before I will be compelled to bid you farewell."

Too well we knew that Ivan spoke the truth. There was no escape for him. His magnificent physique and good health precluded all possibility of escaping a term in the service of the Czar, and then, too, his parents were responsible, in more than one way, for his return to Russia upon his arriving at age.

In the general fire of conversation which followed the announcement of our chum's prospective leave-taking, Ivan impressed us with his desire to keep in communication with our little band. He wished us to arrange matters so that he could receive the publications issued by the Nihilistic societies in England, France and Switzerland, and which escaped the Austrian censor. Many and varied were the plans advanced for evading the cunning hand of the Russian mail censor, thus insuring the safe delivery of newspapers and contraband publications destined to be sent from our little circle. We well knew the difficulties to be encountered. Every letter received by Ivan and the other Russian students bore the handiwork of the Russian censor. Each student knew that all letters to his home in Russia would be opened and read. The manner in which letters of every description were ripped apart was a source of anger and dissatisfaction. Sometimes mementoes sent by sweethearts in Russia to the students would fall from the torn envelopes and be lost. The censor was not particular in the least, and with a pointed knife would open one side of the envelope, read the contents, scrutinize the paper for chemical and invisible writing, and, if satisfactory, reinsert the letter, paste on it a small blue slip and mark it "inspected."

The sentiment of the student body was such that they would stop at

nothing to outgeneral the Russian officials. For myself, I had been carrying on experiments in photography in the technical school of Vienna for months. The well-equipped laboratory was at my disposal and there was nothing to prevent experiments of any description.

Calling for silence, I made a proposal which met with the instant approval of all of the students. My plan was simple in the extreme. By it I felt assured that copies of periodicals and correspondence of the most objectionable nature could be safely passed through the Russian mail and safely delivered to Ivan in Russia. Roughly I explained the details of my scheme.

I proposed to make a wet-plate negative from a page of one of the periodicals desired by Ivan, containing information of the movements of prominent persons connected with his society. From this negative, I would, by means of a microscopic objective, make a reduced positive about half an inch wide and three-quarters of an inch high. Upon developing and fixing this positive I would coat the tiny transparency with a thin solution of rubber cement. When the cement had dried I would apply another coating of stripping collodion to which had been added a little Castor oil. While yet wet I would apply a match and burn out the alcohol in the collodion still attached to the transparency. Then with a pointed knife I would cut around the sides of the page on this tiny film while it was on the glass plate, place it in water, to which had been added a small amount of acetic acid, and then the tiny film would peel off the glass.

I assured my listeners that when this small film had been lifted from the water and dried between blotters it would become as stiff and crisp as the finest linen paper. After cutting a tissue paper cover of the same size as this film, I further assured my listeners that it could be so secured on an envelope that detection would be impossible.

Procuring a ten-kreuzer Austrian stamp from the landlord, I cut with my pocket-knife a piece of paper of the size I proposed to make my film. I then placed the stamp over the paper, and wetting the edges of the stamp, fastened it to an envelope in such a manner that no one could possibly detect the presence of the paper underneath. I told my associates that when the letter with the film under the stamp was delivered to Ivan he would experience no difficulty in peeling off the stamp, taking out the film, placing it between two glass slides, and then under his microscope read the forbidden news.

Such, in substance, was the method proposed by me. My student companions, after their amazement at the ingenuity of the plan had subsided, approved its every detail and proposed that we begin experimenting at once. We discussed the plan until long after the midnight hour, and then parted, each of us making new paths in the fresh fallen snow to our cold and cheerless couches.

A few days later I so succeeded with my micro-photographs of written and printed matter that I sent specimens to my chums through the Austrian mail in the manner in which I had explained to them. They, after closely scrutinizing the stamp, became enthusiastic and pronounced the plan a success.

Some few weeks after this memorable Christmas eve Ivan came to my laboratory and, in his own peculiar way, informed me that he was shortly to

leave for Russia. In his confidences he told me, without reserve, that he was a sworn member of the Nihilistic organization, with its headquarters in St. Petersburg, and that, although he must wear the colors of the Czar, his life was given to liberty and Nihilism.

During the next three years many a letter containing news, which the ukase of the Czar branded as criminal, came and went with the Russian censor's mark, "inspected," upon it. Suddenly the correspondence ceased. Ivan answered none of our letters. In the kaleidoscopic changes of life I drifted to Asia, Africa and then America, losing all sight of my one-time chum.

Some seven years ago a schooner brought to the port of San Francisco six Russian political convicts. These men were picked up starving and almost naked on the coast of Shangalien, their poor bodies mutilated by the cruel Russian knout. For a time they were exhibited, by an interesting showman, at the Midway Plaisance. I talked to those men often. *One of them was Ivan.*

Christmas eve is here once more, and with it comes recollections of our meeting in the tavern near Universitat Strasse, but Ivan lies buried in this great land of liberty, freed from the woes which belong to those who profess Nihilism.

READING THE CONTRABAND NEWSPAPERS.

NEGATIVE BY OSCAR MAUREH. CHRISTMAS EVE.

COPYRIGHTED BY E. S. CURTIS.

THREE CHIEFTAINS.

NEGATIVE BY TABER.

SISTER B.

"And God said let there be light and there was light."

How beautiful is God's first born
When pushing back the veil of Dusk
To kiss the new born baby, Morn,
And breathe its soft, moist breath of musk!

Light burst the Orient doors of Dawn
And like a cannon shot it came:
From peak to peak, on and on,
It flashed and lit the snows to flame.
A flaming sword in high right hand,
In left, red javelins of light,
A brow to conquer and command,
An eye to pierce the house of Night.

Light paused on Shasta, bowed a face
As awed before such majesty,
And seemed to pray a little space,
And I, too, bowed nor dared to see.
My very soul was sore afraid,
The glory was so passing sweet.
Then lo! the Sun uprose and laid
His sword of fire at my feet.

Below white sea mists of the main,
Possessed the mountain pass and lay
Like legions fortressed, then the plain,
Uprose in gorgeous, glittering array.
The Sun caught up his sword of light
And, flushed with anger, swept right on,
And hip and thigh he smote black Night—
Hewed left and right for golden Dawn.

Back, back, the sea mists surged, and now
The mountains blazed with battle, then
Such glory wrapped the Mountain's brow
As never had been seen of men;
Then down sank Night into the sea,
Submerged, as Pharoah's hosts, and Morn,
Full grown, gold-garmented and free,
Tiptoed and laughed 'lorn Night to scorn.

HIGHER ASPIRATIONS AND A BRIGHTER OUTLOOK.

EDWARD W. NEWCOMB.

At the close of a year's work I think most of us must come to the conclusion that we shall have to be more careful in the selection of our views and poses, trust less to the element of chance and more in our discreet, thoughtful study. We have made ever so many photographs, more than we ought to by many dozens, more than we ever can again if we are to improve in 1901. In mere photographic technicality the average has improved no little in the past

NEGATIVE BY EDWIN R. JACKSON. PROBLEMS OF WAR.

year, but our eagerness for quantity has too often interfered with our acquiring much of that quality which a picture must have to win admiration, and as we sadly look over what work we deem fair, we admit that we truly have done those things we ought not to have done and left undone those which we ought to have done.

Readers of magazines have progressed beyond the crazy, indiscriminate abandon which characterizes the delighted but indiscreet beginner. It seems to take a certain time for the owner of a camera to realize that although it is easy enough to shoot, develop the plate and make a print, the result is hardly ever a satisfactory picture. The disease has to run its course, and the only pity is that in many cases it is hard to cure, if, indeed, it can be cured at all. The very class of people, beginners, who most need the helpful advice of a magazine, prefer to find it out later, after the disastrous fall from the heights they supposed they had reached, and at no small expense. Finally, it becomes apparent to some that good sound advice should be had; they take a magazine,

better their work by seeing and reading, and then comes the later and inevitable conclusion that there is still much to conquer.

At this stage it is well to look backwards a little and see to what fault we are chiefly indebted for our unsatisfactory work, and if we analyze properly we will surely find a great proportion of our failures due to hurried, ill-considered selections.

Just think! we sometimes carry out a dozen plates, or four times that many films, and come back with the greater part exposed. I have often spoken of this evil, and will merely repeat for the thoughtful consideration of all, that no living artist could, or does, or ever did, conceive as many pictures in a year as some of us think we make in a week. Because a thing was the best that was to be had, as we think, in the locality we visit is no reason for photographing it. Go elsewhere. A really excellent picture is somewhat difficult to find ready constructed for us, merely waiting to be snapped as we pass by. There are a few such things here and there, but that there are not many is witnessed by the frightful quantity of partially or wholly bad pictures taken by our well-meaning but hurried friends, the inartistic, hurry-skurry camera "fiends" (fiends is a good term to use) who take such long odds in exposing plates on that from which they cannot often expect good results. Do not expect that any mysterious agency in the camera or chemicals will turn that which is ill-balanced, has no composition and no interest into a salon gem. Selection alone,

NEGATIVE BY F. E. SCHUMACHER. "THE WHITE AND THE BLACK."

careful selection with much thought and crafty disposition of the material at hand, or to be obtained, will be found the foundation of all good pictures, save a few lucky shots now and then.

To maintain a good average one must ignore chance, luck or anything but work. There are many who do not quite understand why a picture is or is not

acceptable in the eyes of others. They do not yet know that no matter whether humble or grand the picture must be well composed, or else it is a failure. The rules are not exactly arbitrary for they admit of many interpretations, still they must be considered, and before we can be sure of making pictures we must know what a pleasing picture consists of. We in America are not doing wholly bad work, but, at the same time, so few have paid proper attention to some preliminary instruction in composition that our selection and choice is not good. Many lack eye-training, some lack perception, and others lack the common sense in photography that they would display in the pursuit of business or any sport.

Unless one needs practice in the chemical room, it is not at all necessary for him or her to burden themselves with large quantities of sensitive plates or film, for if they know the amount of time it really takes to select and choose and change and add to a proposed picture they will need but few plates. Some of our successful men wait months for a proper light or other condition on a scene before they finally carry out a camera and get it. Many of the best-known exhibitors have not enough pictures to exhibit different ones at each of the important salons every year, and when these careful workers confess their inability to provide eight or ten good, representative photographs a year, it should be a lesson, indeed, to those who expect to make that many each day they work. Even the painter, with all his power of imagination to draw upon and without the limitations with which we photographers are restricted, cannot select, imagine and create so many pictures in a lifetime as we essay in a month, and it is high time that we came in contact with the fact that if these trained eyes cannot accomplish it, we ambitious lens-users are attempting too much, using too little care, and either overrating the possibilities of photography, or else acting in a way that deserves no better success than we obtain.

Do not take pictures simply because you have a camera with you and do not care to go home without something. Think what that something is apt to be unless it is given study and work when that work is thoughtfully planned out.

In the coming year let us see if we cannot do our share in raising the average of the work done in America by using greater selective ability, based on rules that are known to give masterly results.

I know we ought to take better photographs: I know we can, for we do most things well. The only trouble is that we, as a race, hurry too much and cannot seem to stick at a thing requiring great patience and perseverance as long as is necessary to show our real brains. I do sincerely hope that the coming year will change the position of the great army of camera lovers and users. That instead of a few names, a great many will become known and respected for their photographic work. Let us hope that in the coming year much serious work will be attempted. It is not that some of the celebrated English workers have better apparatus — their instruments are no better than ours, and in many respects not as good. It is not that they have more opportunity, better subjects, better atmosphere at all times; but they are used to taking their time and making a finished result, with no hurry or attempt to do too much. If we took the pains they do we would probably excel them, since we are not so slow in perception as many of the other races. We have

all of the brains that are requisite, and we know how to use them if we only will. Can we not take photography seriously? Must it remain mere child's play? Shall the British critics always speak condescendingly of our work? I know not; but if we have the requisite pride and we care enough, things will change in 1901.

If these lines strike any as un-American, I must say in their defense that, to award the devil his due, others are going into photography very seriously indeed, and I am only giving the warning signal to fire our ambition and bring out work that I know we are capable of doing. We are not doing our best. We are leaving the representative work to that vague "somebody else," and, as a consequence, no one is representing us as we, a nation of such vast proportions, should be represented. I know it will afford all satisfaction they never experienced before to conceive better pictures, to take far more pains, to study composition and learn what an interesting picture consists of, and finally to build such a picture with infinite pains and claim its authorship.

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TWO OLD MAIDS.

It will be a very happy day, indeed, for the man who does it successfully, and will give him more real pleasure than his previous work ever has. It is right that we should advance each year, take better pictures, know them better when we see them, and understand art more thoroughly. As a toy, the camera indeed promotes fun, but it cannot give permanent satisfaction. It is like setting off a pack of fire-crackers—good enough while it lasts, but not enduring.

As an educator, the camera can be, and is, of inestimable value, if we only care to take it seriously and, instead of wasting great sums of money upon its supplies, use it rationally. Then it will be found the most satisfactory companion we could choose and capable of great things if we will but realize that those things depend less upon it than upon ourselves. What we have been doing photographically is at a great variance with what we do in almost everything else, and we should make up our minds to do better in 1901.

NEGATIVE BY E. S. CURTIS.

A DESERT QUEEN.

NEGATIVE BY E. S. CURTIS.

THE EGYPTIAN.

ILLUSTRATING THE POSSIBILITIES OF THE GLYCERINE DEVELOPMENT OF PLATINUM PAPER.

THE GLYCERINE PROCESS FOR PLATINOTYPES.

By W. G. Woods.

WITH ILLUSTRATIONS BY THE WRITER.

SO MANY REQUESTS HAVE BEEN MADE TO THE EDITOR FOR A SIMPLE AND PRACTICAL ARTICLE ON THE GLYCERINE DEVELOPMENT OF PLATINUM PAPERS THAT AN APOLOGY IS NECESSARY FOR THE LONG DELAY IN GRANTING THE MANY REQUESTS. IN EXPLAINING THE DELAY THE EDITOR ADVANCES THE STATEMENT THAT TO REDUCE A GIVEN PROCESS TO SIMPLE PHRASES AND TERMS REQUIRES TENFOLD MORE WORK THAN AN ARTICLE WRITTEN FOR THOSE WHO HAVE ALREADY EXPERIMENTED IN THE PROCESS ABOUT TO BE DESCRIBED. A WELL-KNOWN PUBLIC SPEAKER WAS ASKED TO MAKE A FIVE-MINUTE ADDRESS. HE REPLIED: "IF YOU WISH ME TO SPEAK FIVE MINUTES I MUST STUDY AN HOUR. IF YOU WISH ME TO TALK AN HOUR I AM READY NOW." SO IT IS IN PREPARING AN ARTICLE OF THIS CHARACTER. TO MAKE IT SHORT AND SIMPLE REQUIRED MUCH WORK. HENCE THE DELAY.

The greatest value of the glycerine process in connection with platinotype printing lies in the fact that in the hands of the artistic photographer, or he who aims to express what he sees in his own individual manner of seeing, and which he is unable to express by the usual printing methods, is placed the power to so modify the picture in the development as to suppress many of the bad points and bring into prominence the good ones, both of which have been recorded by the camera with equal fidelity.

Of late years photography has taken its place in art, and so much more is demanded of the photographer in consequence that the more serious worker is no longer content with a mere reproduction, as the camera pleases to make it, but desires to stamp his product with an individuality and to introduce into it his own ideas of lights and shades, tone values and artistic conception of the subject.

Whether or not this is legitimate photography has caused much discussion and will not be entered into here. To those who believe that anything making better photographs is legitimate photography the following outline of the glycerine process is offered:

The use of glycerine in connection with platinotype printing is not a new thing, but will be found in nearly all the standard works on the subject. However, it is only recently that its real value has been appreciated. This is its power to retard or entirely prevent development. The mechanical portion of the process is very simple. The printing is done as usual, except that it is carried a trifle further along. The print is placed face up on a piece of glass and coated evenly with glycerine. By means of a blotter the glycerine is worked into the print and the surplus blotted off.

The development is then carried on with a brush, bringing out such parts as are desired and holding back or omitting entirely any objectionable portions. It will be seen at once from this simple description what a powerful agent is placed in the hands of the photographer. Whether good or bad use is made of it depends simply upon the artistic ability of the worker, and as no written instruction will be of use in this portion of the work no attempt will be made to direct attention to anything other than the rules of manipulation, which are more or less imperative, leaving it to those who take up the process to provide further ideas to suit their own needs and to work out their own successes or failures.

As to paper the heavier grades of cold-bath platinotype are to be preferred, as the paper undergoes considerable rough treatment. Remembering the power

to hold back the shadows, the printing must, therefore, be done for the high lights, and should be carried far enough to record the delicate detail so desirable but so difficult to obtain in the usual way, because of the danger of over-printing the shadows. In a landscape the sky will generally be the part to which the printing should be carried. If there are clouds in the negative print until they show, and if none the sky should be printed to a tone which can, by a few strokes of the brush, be made to provide the necessary clouds in any shape desired, or lighted from any point.

The print, as taken from the frame, shows some inclination to curl, and may be made to lie flat during the first manipulations by coating the glass with glycerine. The glycerine is applied with a broad, rubber-bound camel's hair brush, and it should be well worked into the print by going over it both ways, then blotting off the surplus and giving it another coating with the brush almost dry.

The brushes for development may be of any style or in any quantity as individual taste may suggest. One more broad one should be provided to brush the glycerine off the print when first put in the clearing bath. Plenty of blotters, of the heavy, white, lintless variety, should be ready for use, and a number of small pieces are necessary as, after development has been commenced, a blotter should not be touched to the print but once, in order to avoid spreading the developer to parts it is desired to hold back. The portions of the print to be treated may first be well blotted off, and an extra coat of glycerine given to those parts to be protected.

THE UPPER ILLUSTRATION IS REPRODUCED FROM A STRAIGHT PLATINUM PRINT. THE LOWER ONE IS FROM A GLYCERINE DEVELOPED PRINT.

The developer for all platinotype work is neutral oxalate of potassium, and a saturated solution (1 to 3) should be made as a stock solution. At least two strengths of developers should be at hand, as follows:

No. 1—Stock solution	1 part
Glycerine	1 part
Water	3 parts
No. 2—Stock solution	2 parts
Glycerine	1 part
Water	1 part

The weaker developer will naturally be used to bring up the delicate half-tones and the stronger for the more pronounced shadows. Development may at any moment be checked with the glycerine brush, which should always be within reach. It is a good plan to make a silver print, before starting development, as a guide in order to determine just where the work is necessary.

By the glycerine method it is possible to develop the print in two tones by the use of an additional developer containing bichloride of mercury. For instance, the face and bust of a portrait can be developed to a flesh tint and the hair and drapery be left in full black. The background may be left out entirely, or, if pleasing, may be developed also.

The mercury solution is:

Bichloride mercury	1 ounce
Water	20 ounces

NEGATIVE BY EDWIN R. JACKSON

DRUMMING.
(*From a platinum print.*)

This solution is added to the regular developer in any quantity desired. The more mercury added the warmer the tone. For warm flesh tints I have gone so far as to use half of the developer and half of the mercury solution. However, as mercury is somewhat unstable in character, I do not propose to guarantee the permanency of the results.

In two-tone work the development must be very carefully done, in order that the warm tone shall not spread to those parts in which the black tone is desired, for once it has done so, there it stays for good. The glycerine brush should ever be ready and, after being used to check development, should be washed before being replaced in the glycerine, in order to prevent contamination.

The brushes used in the mercury developer must be kept for this alone and should be well washed after use. In the further development of those parts not developed to the warm tone, use a tray in the regular manner if the background is to be left entire. Any part of the print may be brushed out with the black developer, parts already developed in the warm tones not being further affected by the black tone developer after having been developed in the warm tone, provided there are no strong shadows undeveloped. Development completed, the fixing is done in a bath of one ounce C. P. muriatic acid added to sixty ounces of water. Prints should have at least three changes of fixing bath to insure clear whites. On being put into the fixing bath the glycerine should be brushed off with the broad, soft brush to which allusion has been made, so that even fixing may be assured.

For the mercury-developed prints the fixing bath should not be over one-third as strong in acid or a change in tone may result. After fixing, prints are washed in three or four changes of water or five minutes in running water, and dried.

While this article is offered as a mere suggestion as to the possibilities of the glycerine process, it contains every essential to proper experiment. Believing all formulæ to be indicative rather than imperative, those given may be varied at will; in fact, the entire process is one in which individual taste and artistic ability must be called into play. The two prints of Lake Tahoe accompanying this article will show the value of this process from a simple standpoint. The reproduction of "The Egyptian," by E. S. Curtis, will give some idea of the effect to be obtained in the double-tone process, despite the fact that it is practically impossible to reproduce by the half-tone process the effect to be obtained.

Willis & Clements advise this process for mounting Rembrandt prints:

Lay the print to be mounted on a piece of paper (we use newspapers cut to about 6x8 for cabinets or smaller sizes, and a *fresh piece for every print*) and quickly spread the paste along the four edges of the print, a narrow strip about the width of the brush, taking care not to use too much paste, and apply it fairly evenly. Place the print on the mount and then at once under pressure.

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SALOME.

PHOTOGRAPHING CHRISTMAS TREES.

A series of photographs of Christmas trees from year to year should prove an interesting addition to one's collection of home pictures. Flashlight gives the best results, and with a little care excellent pictures can be secured.

The method of operation is as follows: Bring the tree well out into the center of the room and light all the candles on it. See that all available light from lamps and chandeliers are turned on full—the best results are always obtainable when the room is brilliantly illuminated. Now focus on the lighted candles, and if any difficulty is experienced in seeing the image on the ground glass wet it a little on the ground side and the detail can be seen much better. If your lens is of the ordinary rectilinear type, such as are fitted to Premo or Poco cameras, f/32 will be the proper stop to use, as it will give sufficient definition to cover plate for this class of work.

NEGATIVE BY F. W. IRELAN "ALL MINE."

Your camera now being focused and the stop arranged, close the shutter and prepare the flashlight. Most of the modern flash lamps ignite the powder by means of an ordinary parlor match. By the pulling of the trigger the match is ignited and forced through an opening in the back of the lamp by means of a spring, thus igniting the powder. Forty-five to sixty grains of powder will be found quite sufficient for all ordinary interiors if your flashlight exposure is supplemented by a time exposure, with all the lights in the room turned up.

Flashlight cartridges work equally as well as lamps, and when handled with care there should be little or no danger. Accidents are usually attributable to two causes—carelessness in location of lamp or cartridge (it should be held away from lace curtains, draperies, etc.), or to the use of cheap or inferior flashlight powder.

The position of the lamp should be somewhat higher than the camera and six or eight feet to the side, on a line with the lens, which must be protected

during the exposure by interposing something—the slide, for example—between it and the light. Never be in a hurry when making a flashlight picture, and do not be afraid of the light in the room fogging the plate. When everything is ready for the flashlight exposure, open the lens and expose on the the tree for a minute. This time exposure will be long enough to get the proper values of the candle lights on the tree, and also help out wonderfully in insuring detail in the tree itself.

Immediately after the time exposure make the flashlight exposure and cap the lens. The result will be a negative that will show the tree in all its glory, every light and bright bit of tinsel receiving its proper value and the dark green foliage developing with a considerable show of detail. Use a moderately soft developer, such as metol-hydro or straight metol, and develop until the plate is black when examined by the darkroom light.

NEGATIVE BY E. S. CURTIS. PORTRAIT.

THE A B C OF FLASHLIGHT PHOTOGRAPHY.

By Frank G. Bangs.
ILLUSTRATED BY THE WRITER.

(*Concluded from last month.*)

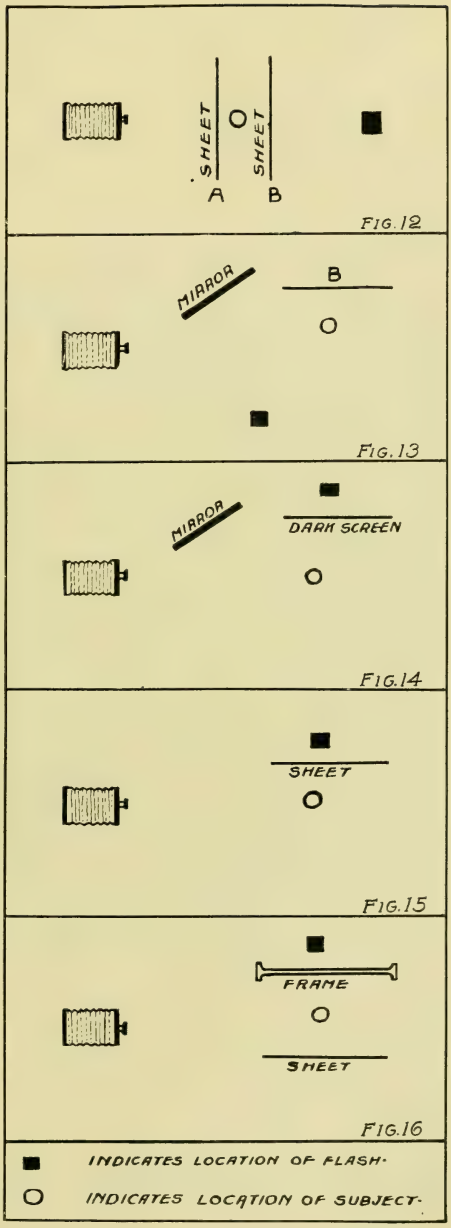
Camp-fire photos at night can be made in the following manner. Group the subjects around the fire. Have one directly in front of the camera. This is for the purpose of shielding the plate as much as possible from the flash. After the wood has been arranged to start the fire, scatter the paper all through it and at the top place a charge of powder. Open the lens and light the paper that has been placed all around the fire. Have the subjects remain still until the paper burns up to the flash at the top. Another way is to wait until the fire is going full blast, and then have the subject directly in front of the camera throw a charge of powder into the fire. The powder should be wrapped in a piece of paper first. There are many ways of taking camp fires which will at times suggest themselves to the reader, but the writer has tried the above experiments and found them to give good results.

CURIOSITY.

It will often happen that the owner of a camera has occasion to take a flashlight of friends visiting the house. When a photograph has been taken, how many have been shown a proof from the negative a few minutes after the exposure was made? It is done in the following manner: After a plate has been developed and fixed, leave it in running water about five or six minutes. Then take a piece of Velox or Dekko paper and immerse it in water until thoroughly wet. Then put the plate in the same water and press the paper against the film side of the plate while the negative is still under water. Take out the plate with the paper attached and run the thumb over the back of the paper to press out the air bubbles. Expose in the usual way. After exposure, remove the paper carefully and develop and fix for a moment or two. Of course, this picture is not permanent, as the hypo was not eliminated from the plate in the short washing and the print is not washed after its few moments of fixing. The developer used for developing this paper should not be used for anything else, as it is, of course, spoiled for any other purpose by the hypo from the plate. I have tried this experiment numbers of times and have yet to spoil the first plate.

An amusing experiment for an evening at home is to set a camera in a dark room with the lens opened. A fixed focus camera is preferable. Have an assistant standing with a pan and a bottle full of shot. Use some excuse for inducing one of the guests to enter the room, and immediately upon his entering have the assistant drop the shot on the empty pan and discharge the flash. Make the proof of the picture as described before, and I will warrant that the remaining guests will have a good laugh at the result. You cannot imagine the ludicrous attitudes that can be secured. The writer would gladly show a few examples of this experiment, but does not dare to, as they are worse than a libel upon the subjects.

The photographing of animals by flashlight is a branch which yields most pleasing results. Take a photo of your dog or cat out of doors, and take the same animal by flashlight (using position shown in figure 14). Then compare the two. You will find that the flashlight photo will far excel the one taken by daylight. The flashlight negative will show perfect detail; every black hair will show and no portion of the animal will be a confused mass of "something" that you have tried to force detail into by over-development, as would be the case with your daylight photograph. It is advisable to have everything ready to proceed before bringing the animal into the room, as I have found by experience that they usually



are very particular and are not partial to more than one flash during an evening.

There are many followers of the craft who would take up the photographing of flowers if they had the time during the day to give this branch their attention. Photographing flowers by flashlight is a pleasant pastime. I do not claim, however, that flashlight photos of flowers are superior to those taken by daylight. I do claim that beautiful and artistic results can be secured, and I have seen photos made by flashlight that one could not possibly tell from those made in daylight. Take a sheet of Eastman's flash sheets and

"NOW I LAY ME DOWN TO SLEEP."

cut same in a circular manner, so that it will give a strip about half an inch wide and a foot or more long. Arrange this in a semi-circle as near as possible to the flowers without having them in the range of the lens, and at a height to secure the shadows desired. Light one end; this will give a gradual flash. It is also advisable to have a mirror placed on the opposite side to act as a reflector and to prevent the shadows from being too dark. A diffusion of the shadows is also secured by setting off a small piece of flash sheet on the opposite side from the first flash. Use any background desired, but place it far enough in the rear of the flowers to avoid the shadows showing.

Outdoor flashlights are as easy to make as those taken indoors. The rule for one applies to the other. The taking of a photograph in the open does not seem to necessitate any appreciable difference in the position of the camera or powder, but it is advisable to increase the charge of powder to a slight extent, the rule being, as in every case where a flashlight photo is taken, *to get as near subject as possible with flash without having same in range of lens.*

While night portraits are, as a rule, taken by the use of flash powder this agent is not altogether necessary, although preferable. I have secured a fair photo by the use of a Wellsbach light, giving an exposure of ten minutes. The projecting of the rays of a bicycle lamp (acytelene preferred) will give a photo in from six to eight minutes. This method is also useful in easing up harsh shadows on a subject's face, it being only necessary to throw the rays of the lamp on the side of the face opposite to that reached by the flash powder for half a minute or so. This should be done before the explosion of the flash powder.

Silhouettes are secured in the following manner: Figure 12 illustrates this position. It is first necessary to focus the shadows on the sheet. (The sheet "A" should be put between two rooms.) Place a lamp where the powder will be ignited. This will show the shadow plainly enough to secure the proper definition of focus. After everything is ready to expose have the assistants hold the sheet, "B," two or three feet away from subject, as shown in the diagram, and set off the flash at the point where the lamp was. If the first attempt is not a success the negative can very easily be touched up with opaque to secure the effect desired. This will not be necessary after one or two trials. It is advisable to over-develop the negative to a slight extent.

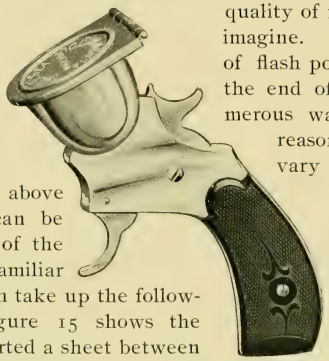
I would especially suggest flash powder in the photographing of children. It is possible to secure the little ones in almost any pose, and as the photo is taken instantaneously success is assured, as they do not move quickly enough to escape the flash. I have even taken them walking toward the camera with the same result one would secure if the photograph was taken in the sun, giving an instantaneous exposure. I would not advise flashing the little ones too often, especially if they are very young, for, although no injurious results are occasioned by it, they become afraid of the flash explosion, and later on will not pose for pictures if they see a camera in sight.

Flashlights, as all those who have used this method know, make very strong shadows, and the most careful attention is necessary to secure shadows that will harmonize with the high lights. There are numerous ways to prevent deep shading, and I have found the following to prove satisfactory.

Take the following position: for instance, figure 13, a three-quarter view of a young lady. The face in this instance is at an angle looking toward the mirror. It is necessary in this case, to avoid a strong shadow of the nose and to prevent very deep shadows on the side of the face opposite the flash, to use a reflector, *b*. This can either be a large piece of wrapping paper or a sheet. Mirrors are very often used as reflectors, and I would suggest the position indicated. It will be noticed that it is placed so that it throws a reflection on the shaded portion of the subject's face.

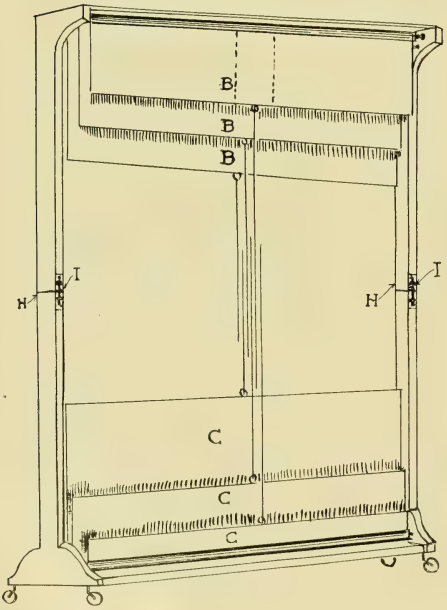
Figure 14 shows a different method of using the mirror. The flash should be entirely screened from the subject and, as will be seen by the diagram, the

subject is lighted by the reflection of the flash on the mirror. This method gives good results, and I employ it quite frequently. I might add, that by a system of mirrors placed at different angles I have carried the rays of the flash from one room to another by reflection alone. This may seem improbable to some, but the actinic quality of flash powder is much greater than one would imagine. I have even taken photos with ten grains of flash powder, or an amount that could be held on the end of a penknife blade.



I have shown numerous ways of taking flashlight photos, for the reason that circumstances surrounding pictures vary as a rule in almost every case. From the above suggestions nearly any kind of a photo can be taken. After the reader has tried a few of the combinations as suggested, and has become familiar with the lighting effect of flash powder, then take up the following method and use it where possible. Figure 15 shows the position. It will be noticed that I have inserted a sheet between the flashlight powder and the subject. This method can be applied to nearly every position noted. The rays of the flash powder go through the sheet and the light reaching the subject is as soft and diffused as can be secured in any well-lighted gallery.

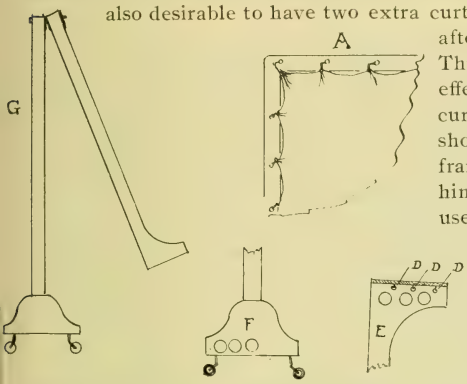
While the sheet is a simple method of obtaining the result desired, the following is a plan of an indoor photograph gallery, and as the light and shades can be manipulated at will, it is far superior. As a flashlight accessory I have yet to find its equal.



It will be seen from the accompanying design what is meant by an indoor photograph gallery where sunlight is not used.

The size of the frame proper is eight feet by five. The size is, of course, optional with the reader. A piece of white sheeting is stretched over the frame opposite to that shown in the cut. This can be tacked on, but it is preferable to sew little rings to the cloth and fasten on some hooks or nails as shown by "A." The diagram shows three curtains, "B," dropping from the top of frame and three, "C," that should roll up from the bottom. The string attached to the bottom curtains should, of course, be run to the top of the frame and over the usual curtain catch, "D," to hold the curtain in

the position desired. Twelve curtains can be used if desired, making the division as shown by dotted lines, having three on a side overlapping each other about two or three inches. The curtain rollers are ordinary window curtain rollers, but white cloth should be used instead of the ordinary material. It is also desirable to have two extra curtains of black cloth, and one made after the fashion of design "K." This latter design gives excellent effects. "E" and "F" show how the curtain rollers are placed, and "G" shows the method of folding the frame when not in use, it being on hinges, "H." Bolts "I" should be used to keep frame tight when in use.



Now, as to the method of using this instrument. To simplify the instructions it is only necessary to imagine the frame to be a window of a photograph gallery and the curtains to be the usual curtains. Your light (flash) comes through the window (frame) and you adjust the curtains to get the desired shadows. Place your frame in the position indicated in figure 16. To secure the lighting desired, place a light where the flash will be and adjust the curtains to obtain the proper shadows. After this set off the flash and the photo is taken. It is always advisable to place a sheet at the same angle as the frame on the other side of subject to act as a reflector. When the excellent results that can be secured with this frame are taken into consideration the cost is nominal, and any one who cares to devote the time to it can make one himself.

Photographing by flashlight has many charms not obtainable in any other branch of the art. The future experiments which each picture suggests constantly keep one on the *qui vive* for results yet unobtained. After one has carefully taken up the subject the interest never wanes. The evenings are pleasantly spent, and many are the new discoveries that are yet concealed in the mysteries of the flash.

K

It is proper to state, in justice to the manufacturer of the flash pistol that I use, that after a thorough trial of almost every pistol that has been placed on the market I have yet to find one that I have secured better results with than the Chelsea pistol. It is instantaneous, and if ordinary care is used in selecting the proper cap the pistol never fails to explode the flash at the exact moment wanted. Much, if not everything, depends upon the photographer as to the moment to discharge the flash, and his success or failure will depend upon his judgment.

NEGATIVE BY BOYE & HABENICHT. **HALF PAST TWO.**

NEGATIVE BY E. S. CURTIS.

ON THE PRAIRIE.

A SIMPLE METHOD OF TONING ARISTO PLATINO.

By Wm. T. Blakely.

The principal drawback in the working of Aristo Platino paper has been the length of time required to finish a batch of prints. First, the necessary preliminary washing in from six to eight changes of clear water, then toning in the gold bath, after considerable time spent in testing to insure a bath of the proper strength. Following this, we must again wash the prints in several changes of clear water to prepare them for the platinum bath. After being toned in the platinum bath, the prints require washing again in several changes of clear water in order to thoroughly eliminate all acid before they are placed in the fixing bath, where they must remain fifteen or twenty minutes, and are then ready for the final washing process.

This treatment necessarily requires a great deal of time—more than most amateurs are willing to spend when they have only a few prints to finish.

It is true that by using Aristo single toner considerable time may be saved; but even then the toning process requires considerable time.

I have been using Aristo Platino for some time, and like this paper much better than any other; but I, like many other amateurs, find that I cannot always spare the time to tone the prints in the regular way.

About a year and a half ago I noticed an article in the *American Amateur Photographer* of November, 1898, regarding the use of the combined bath for toning gelatine printing-out papers, and have since used the same extensively with both Solio and Rex papers, securing excellent results. The tone of prints treated in this bath is excellent, and I know of no instance where a print properly treated in this bath has faded.

The formula given is as follows:

Sodium hyposulphite	2 ounces
Chloride of gold	2 grains
Water	16 ounces

Dissolve the water in the hypo thoroughly before adding the chloride of gold. This bath should stand at least twenty-four hours before being used.

The method of toning gelatine printing-out papers in this bath is as follows: Immerse the prints, without previous washing, in a tray containing the solution, when they should be shifted until the desired tone is secured, whereupon they should be transferred to a basin of clear water until all are toned. Then they will be ready for the final washing—one hour in running water or sixteen changes by hand.

A year or so ago I treated several prints on Aristo Platino in a bath made after the above formula and was surprised at the excellent results obtained. The tones ranged from bistre to sepia and a chocolate brown, according to the depth of the printing.

For medium tones, the print should be about as deep as Solio and other like papers are usually printed. Do not print until the shadows are bronzed, as is usual with this paper, for the prints will be too dark for most subjects. The prints should be immersed in bath without previous washing, and will reach the proper tone in one or two minutes. They are then ready for the final washing. This method of working Aristo Platino is almost as simple as

that of working blue prints, while the beautiful effects secured are suitable for many classes of work. Excellent effects can also be secured when making copies of paintings, as the tone greatly resembles that of old engravings.

As for the keeping quality of the tone, I believe it to be as permanent as any other. I have prints which were toned in this bath about a year ago, and they now have the same tone as when first made, notwithstanding the fact that I have frequently exposed them to the sun in order to test their keeping qualities. One thing must be closely attended to, however. The final washing *must be thorough.*

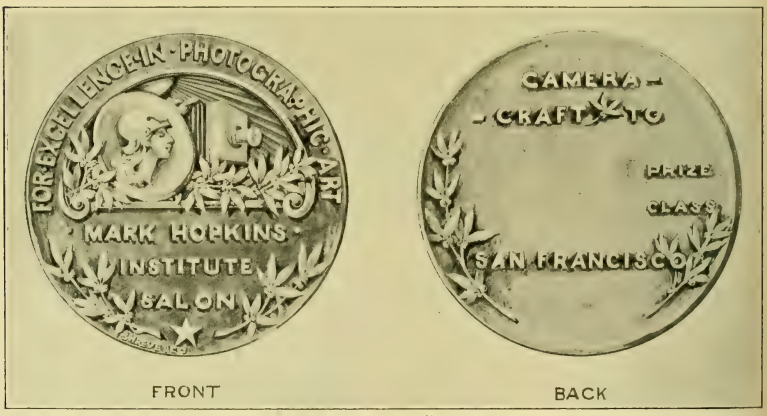
NEGATIVE BY ARNOLD GENTHE. FOUR OF A KIND.

MANY SALON POINTS DECIDED.

One of the most important meetings yet held in connection with the salon took place on the evening of November 26th in the office of Captain R. H. Fletcher, Curator of the Mark Hopkins Institute of Art. The members of the Jury of Selection and Hanging and the Committee on Publicity and Promotion were invited to meet the Executive Committee. There were present Messrs. Fletcher, Erwin, McFarland, Coombs and Street of the Executive Committee, Messrs. Adams, Maurer and Hosmer of the Committee on Selection, and Mr. Ackerman of the Committee on Publicity.

The meeting resolved itself into a committee of the whole, with Mr. Erwin in the chair. Mr. Coombs was named as secretary. The committee then proceeded to discuss and rule upon many points brought to its notice by correspondents.

Despite many arguments introduced by various persons in this and other States, it was the sense of the meeting that the rules as published by the Salon Committee be adhered to. Several letters were read by the secretary criticising



THE "CAMERA CRAFT" MEDALS.

the management of the salon for its policy in deciding to admit photographs possessing attributes not recognized by the management of Eastern salons. From the expressions of members of the committee it was evident that the San Francisco salon would not be conducted entirely on the lines laid down by the committees of the Philadelphia and Chicago exhibitions.

A number of inquiries have been received by the committee as to the limit of size and number of pictures from each individual exhibitor. The secretary was instructed to inform these correspondents that no limitations of this nature had been or would be made.

Considerable discussion was had with reference to the appointment of the Jury of Award. While several members of the committee expressed themselves in favor of a committee composed of two artists and one photographer,

it was decided to make no change from the plans formed in September. The committee will, therefore, consist of three artists selected by the management of the Mark Hopkins Institute of Art. This point was, in reality, one of the most important considered at the meeting, as it is the first time in the history of photographic salons that the final Jury of Award will consist of members chosen wholly for their ability as artists. The names of the members who will compose this committee will not be made known until January 1st.

The Committee on Publicity and Promotion was given power to proceed with the work upon the catalogue. It was decided to permit the insertion of advertisements in the back of the catalogue. The meeting then adjourned to meet at the call of the chairman within two weeks.

Preceding the meeting of the joint committees an informal discussion was had upon the advisability of members of the Committee of Selection and Hanging submitting pictures in competition. Although no definite action was taken there will be no objection offered to the committee members should they desire to exhibit.

The medals which will be given by CAMERA CRAFT in conjunction with the Certificates of Merit awarded by the Mark Hopkins Institute of Art are now being made, and will shortly be placed on exhibition. The accompanying illustration is a reproduction from a wash-drawing, and will give but a faint idea of the artistic appearance of the finished medals.

IN THEIR NEW QUARTERS.

The house-warming given by the Los Angeles Camera Club on November 16th was a social as well as an artistic success. The new quarters on South Hill Street are admirably adapted for decorative purposes and the committee having charge of this work earned well-merited praises by the manner in which they improved upon their opportunities. The club colors, olive and rose, were used in the floral decorations, and the quaint combination was but a fit setting for the bevy of bright-eyed and handsomely-gowned women who attracted the full attendance of the male members of the club. Hundreds of visitors thronged through the clubrooms, inspecting the new quarters and commenting upon the prints which hung upon the walls.

During the evening the result of the first print competition held by the club was announced, the prize winner being Mr. Leslie L. Merrick. Mr. O. Granicher and Mr. W. F. Morphy received honorable mention for their exhibits.

Flashlight pictures were taken during the evening with the usual incidents and delays attendant upon operations of this character. While the rooms were thronged a telegram was received from President Erwin of the California Camera Club. President Valentine rapped for order and read the message, as follows:

"L. A. CAMERA CLUB:

"The California Camera Club and fifteen hundred friends, assembled at their one hundred and twenty-sixth monthly lecture tonight, send you their hearty congratulations and sincere good wishes for your continued prosperity. "J. W. ERWIN,

"President."

READING ROOM IN THE NEW QUARTERS.

Someone called for "three cheers for the California Camera Club," followed by three for President Erwin. It was not until midnight that the rooms were cleared. Everyone voted the affair an immense success and the committees came in for much praise.

The club officers are as follows: President, C. O. Valentine; Vice-President, W. D. Campbell; Treasurer, Mrs. P. E. Woten; Recording Secretary, Miss Alice J. Stevens; Corresponding Secretary, Miss Helen Davie; Chairman House Committee, F. Q. Story; Chairman Program Committee, A. C. Moore; Chairman Lantern Committee, O. Granicher; Chairman Outing Committee, L. A. Merrick. The following members assisted the officers in receiving the guests: G. G. Johnson, H. F. Norcross, Captain J. S. France, Mrs. A. C. Moore, Mrs. F. L. Stearns and A. E. Little.

RETROSPECTION.

I wandered down the pathway I had come,
And viewed the things that I had cast behind;
Full many were well lost, but there were some
Whose pallid wrecks drove daggers in my mind.

NEGATIVE BY EDGAR FELLOWS.

THE COCK O' THE NORTH.

OUR MONTHLY PORTRAIT.
STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

A PHOTOGRAPHIC JOURNAL
ISSUED MONTHLY BY

THE CAMERA CRAFT PUBLISHING COMPANY

220 SUTTER STREET, SAN FRANCISCO.

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W. G. WOODS, Editor.
CARL E. ACKERMAN, Managing Editor. F. I. MONSEN, Associate Editor.
L. D. HICKS, Business Manager.

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VOL. II. SAN FRANCISCO, CALIFORNIA, DECEMBER, 1900. NO. 2.

During 1901 the monthly circulation of "Camera Craft" will average over six thousand copies, exclusive of returns, exchanges and complimentary copies.

NEXT YEAR

As the last year of the nineteenth century draws to a close, carrying with it to the twentieth century a record of feats accomplished, difficulties surmounted, and achievements unequaled, it is a fitting time to cast a retrospective glance at that which has been passed and to think of that which is to come. CAMERA CRAFT cannot but take advantage of this opportunity to say something of its future.

Of its past nothing need be said. CAMERA CRAFT stands today as one of the leading photographic magazines of the world. Its opinions are valued as representing the interests of the West. There is not a city in the English-speaking world where CAMERA CRAFT is not on sale, and its friends are constantly increasing the area of its distribution. In typographical appearance, illustrations and editorial make-up, the magazine has not an equal.

While the progress of the magazine during 1900 has been steady it cannot equal that of the future. The support given it during the last two months made the present number a possibility. With this continued support CAMERA CRAFT will grow and grow until it is compelled to stop because of the limitations of the printer's art. In the list of the contributors for the next year there are names famous in both our own and other countries. Nothing has been omitted which will in any way assist the production of the finest magazine in the world, and in fulfilling this promise the editors will take their measure of reward in the knowledge that the photographers of the world look to CAMERA CRAFT as the exponent of all that is bright and new in photography and its interests.

THE MAGAZINE FIELD

The *Photographic Times* announces that, because of popular demand for a less bulky magazine at a popular price, it will, on January 1st, abandon the present size of the magazine and will decrease the selling price to twenty cents. That the change will meet with the instant approval of the photographic public we have not the slightest doubt. The *Times* has readily stood in the list of great photographic journals because of the exceeding ability of its editors, yet its circulation has been far below what it has deserved.

The day of thirty-five-cent publications has passed and the popular-price publications have come to stay. As it is, the public are the gainers. For ten or fifteen cents they are now enabled to purchase a magazine costing twice that sum to produce. It is the advertiser who supplies the deficiency. The advertiser pays for circulation, and the magazine having the largest circulation is the one patronized. Look at the advertising pages of CAMERA CRAFT this month.

The first San Francisco photographic salon is going to be an original one, and the result of its originality will be watched by the photographic world with interest. For the first time in the history of American photographic salons the work of the photographer will be judged by artists. A jury composed of photographers will select the prints to be exhibited, but there their duty ceases. The artists will view the work, and from their own standards will the awards be made.

That the innovation will be invaluable to the earnest worker in photography everyone will admit. It will show to the photographer the manner in which his work is judged from an artistic standpoint, and cannot but perpetuate the desire for pictures which come up to the standard of the artists.

There remains but four weeks in which to submit pictures. No exhibits will be accepted after January 1st, and the intending exhibitor who delays until the last minute to send in his prints materially lessens his chances for acceptance.

The picture entitled "Two Old Maids," which appears elsewhere in this issue, is erroneously credited to Frank La Roche. The picture was made by Winter & Pond of Alaska, and is a print from their famous collection of Indian pictures.

J. E. Hare, the *Examiner* photographer, scored a magnificent scoop, had his salary raised and was married within the space of one week. Yet some say photography is not in the ascendant.

In spite of a much larger issue, the November number of CAMERA CRAFT was sold before the fifteenth of the month.

When replying to the advertisements in this number do not forget to mention the magazine. It helps us to give you more for your money.

Do not lose any time in sending in your exhibits for the salon. This is the last opportunity CAMERA CRAFT has of reminding you of it.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

AMERICAN JOURNALS.

Anthony's Bulletin — Mr. F. Hansen has an article commendatory of the Agfa Intensifier. The reproduction of M. Wilson's article on the "Production of Silver Prints Without Toning" is concluded in this number, and ends by advocating the use of a silver tartrate paper fixed in an ammonia bath. The advice given is to float the paper in a one to eight bath of silver nitrate, and when nearly dry to brush over with a solution of two hundred and fifty grains of ammonium tartrate in ten ounces of water, and before finally drying, brush again with the tartrate. Print deeply and fix in a bath of liquid ammonia, one in seven.

The American Amateur Photographer, in an editorial on the use of exposure meters, takes back some past unfavorable criticisms on the use of these aids to correct exposure. We are glad of this, for a considerable experience in the use of the unaided eye, the Wynne and the Watkins' meter, has continually strengthened our trust in the indications of these instruments. Those who are interested in the invaluable aid which photography has given to the science of palæography will read with interest the descriptive article by Hermann Schnauss transcribed from "Photography."

The Photo Beacon — The tenth chapter of J. P. Hodge's article on "Artistic Landscape Photography" deals with the subject of figures in landscape, and like the former chapters is good and useful reading. It is about the only thing in the issue to which commendation can be given.

The Professional and Amateur Photographer contains little that has not already appeared and been commented on. Among other things there is an article by J. T. Brushwood on "Retouching and the Use of the Knife," in which the writer, after describing how to remove too evident bones from a lady's neck goes on to say, "Suppose the subject has a crooked nose, it can be straightened by the same method. Thick lips are made thin; heavy wrinkles, frowns and double chins all disappear as if by magic." We commend this to the fiery advocates of "pure photography." Against this production of the perfect negative the works of the glycerine and bichromate men are puny indeed.

The Camera and Dark Room — A pleasant, chatty little number. Its most important article is by E. W. Newcomb, who writes on "What Is Legitimate in Photography" in a vein of solid, common sense, that is much to be commended at the present time when so many are indulging in perfervid nonsense.

The Photographic Times — That the battle of the schools is still raging is painfully apparent by a perusal of this number, but it is to the credit of the *Times* that it, unlike many of its contemporaries, gives fair audience to both sides. The new American school has been exhibiting in London, and we have one of the results in the transference of the battle from the American to the English photographic papers. Then again, Mr. F. Felix belabors (and with justice) Mr. Romyn Hitchcock's paper, "Fuzzy Photography." From these heated polemics it is a pleasure to turn to the temperate and practical article of Mr. A. Hewett on "Pictorial Movement," where the position of both parties is done justice without temper or prejudice. Moreover, in the reproduction of some of the excellent pictures of this critic we have a measure of his right to speak. A paper by Dr. J. W. Kime on "Taking Photographs Through the Human Body," is very interesting, whereby it appears that if a negative be placed in contact with a sensitive plate, and the two be secured in a light-tight manner against the back of a person on to whose chest sunlight is concentrated by means of a concave mirror, an impression will be effected in the space of about half an hour, that will yield a good picture on development. This statement is verified by the illustrations which accompany the article. W. A. Ingram writes on a new and seemingly useful way of "Testing the Speed of Shutters." Lastly, we have a critical article on the "Philadelphia Salon," and many reproductions of the pictures there exhibited. Judgment on the latter will vary with the standpoint, and, perhaps, the prejudices of the critics, but they,

for the most part, exhibit a high order of excellence, yet there are some with mannerisms hard to justify.

The Photo American opens with an article by the editor on a simple form of light meter of his own devising, that for outdoor work is likely to be very useful. Another article states, on the authority of Mr. Hendrickson, that carbon prints may be easily and safely reduced by immersion in a solution of chloride of lime (one ounce of the saturated solution to a pint of water). It is noteworthy that while the opening statement says "chloride of lime" throughout the rest of the article the solution is always spoken of as "limewater." Now, limewater is a solution of slaked lime, and quite a different thing to chloride of lime. Mr. McBean Johnstone discourses this month on the arrangement of masses in landscape. Mr. R. Hines has a very useful paper on Velox for amateurs.

The Photo Miniature is devoted to the subject of photographing children. This is a field of photographic work of growing importance, and is most ably dealt with by our excellent contemporary.

The American Annual of Photography and Photographic Times Almanac— Whatever fault there may have been to find with some past numbers of this annual no one can have cause to complain in the present issue. It is altogether the best that has yet appeared. The subject matter is more worthy a leading publication, and contains several lengthy and excellent articles by well known men. Notable among these is the opening essay by Mr. Kieley on the "Achievements and Present Status of Photography," which is one of the most able and eloquent treatments of the subject that we have had the pleasure of reading. Among the technical contributions, the paper of H. Wenzel, Jr., on "Gum Bichromate" is particularly good and opportune. The pictorial side is equally praiseworthy. The book contains many pictures of great beauty, although many could have been omitted without the loss being felt.

Anthony's International Annual is also out, and this, too, is full of good things. It is true that there is a plethora of small articles and too few of serious length. Among the latter we note a good paper on photomicrography, by W. H. Walmsley. Many of the pictures are good, although not a few are examples of the usual thing and could just as well have been omitted.

FOREIGN JOURNALS.

Photographische Mittellungen— The November part of this publication is remarkable for the beauty of some of its illustrations. "A Park in the Mountains," by W. Schmidt Diehier, is one of the most successful pieces of photographic landscape ever seen. Taking the German photographs in general it is a pleasure to recognize in them that there really is a sun in the sky without minutely examining the shadows, and yet this is done without the exhibition of white paper or spotty high lights. Among the articles of the month we note a severe condemnation of the method of Oscar Pohnert for making orthochromatic plates. Th. Sommer gives the first part of a lengthy paper on the production of the various modifications of blue prints. A great number of processes are described, with the production of many tints and tones, but it would seem that in consequence either of the degradation of the high lights, of instability, or other causes, no practical result has been attained.

Photographische Correspondenz— Those interested in the subject of light filters will find in the October number of this journal a most exhaustive article on this subject by Dr. Grebe.

Photographisches Wochenblatt— Tank development has been receiving a great deal of attention on the continent of Europe, and among the noteworthy contributions to its recent literature is a serial article in this publication by E. Blech. The writer first maintains that the method is equally good for all exposures, and whether under or over-exposed, you still obtain all that the plate will yield. That so far as over-exposure is concerned thirty times too much is of no consequence at all. Among developers his preference is for pyrocatechin, and the Hanneke formula is given, namely:

Pyrocatechin, in 10% solution..... 8 parts
Potassium carbonate, in 10% solution. 200 parts
Water, in 10% solution.....1000 parts

This is on the basis of a three-hour development for a normally exposed plate. Furthermore, the writer claims that better gradation is secured than by quick development, that the cost of developing is less, and he concludes by pointing out its convenience, inasmuch as it is possible to place your plates in the bath in the morning and fix them after returning from business in the evening, or to place them in the tank in the evening and fix the first thing in the morning.

Le Photogramme—The readers of French photographic journals are to be congratulated that the Exposition is finally closed. It is now possible that some other subject may engage the attention of the editors. *Le Photogramme* contains a reproduction of an article by M. Vanderkindere on the subject of reproducing negatives by ammonium persulphate, which we are assured gives excellent results. The *modus operandi* is to make a positive on a lantern plate, or other plate of fine grain, the same to receive double the normal exposure, and to be developed until the darkest shadows show themselves strongly on the back of the plate. The plate is then left in a five per cent solution of ammonium persulphate until the image is entirely discharged. It is then immersed in a five per cent solution of sulphite of soda until the last trace of brown opalescence is removed, and then in full actinic light it is redeveloped with the developer first used, and fixed in hypo.

The English Amateur Photographer—The exhibition of American prints in London looms large in the pages of the *Amateur*, and Hal Dane contributes an appreciative critique thereon. From the *Acta Eruditorum* we learn some interesting facts concerning the most wonderful of all the new elements—radium. Dr. Giesel has recently made thirty grains of it at a cost of two thousand, five hundred dollars, at which rate an ounce would cost forty thousand dollars. This body constantly emits rays akin to those of Roentgen, which will illuminate a platinocyanide of barium screen and give skiographs through half an inch of lead, just as X rays do. Among little hints we note the advice to look at a landscape from the point of view from which a painter generally draws one, viz., from the height of a sitter on a low stool, and if favorable to lower the camera to the same level. The writer has always practiced this expedient and knows its value. Those who wish to manufacture their own Bromide and Velox paper (that is something like Velox Dekko, etc.), should read the issue of November 2d, where T. T. Baker tells how it is done.

INDEX TO CURRENT PHOTOGRAPHIC LITERATURE

AMERICAN AND FOREIGN

THIS INDEX COVERS ALL OF THE PRINCIPAL PHOTOGRAPHIC JOURNALS OF THE WORLD, AND GIVES ALL ARTICLES OF IMPORTANCE DURING RECENT MONTHS.

TITLE	PUBLICATION	AUTHOR
Art, The Pictorial Movement in	Photo. Times	*A. Hewitt*
Bromide Paper, Preparation and Uses	Il Progresso Photografic	*Prof. Namias*
Develop, How Shall We	Gaedicke's Wochenblatt	*E. Blech*
Flashlight	The Camera	*E. W. Guerin*
Landscape Photography	Photo American	*H. McBean Johnstone*
Landscape Photography	Photo Beacon	*J. A. Hodges*
Light, Artificial, with Character of Sunlight	Anthony's Bulletin	*A. Dufton*
Light Meters	Photo American	*E. W. Newcomb*
Light, Penetration of the Human Body	Photo. Times	*W. Kime*
Light, Invisible but Photographically Active	Photographische Rundschau	*Dr. Walkhoff*
Negatives, Improving	Amat. Photographer	
Negatives, Reversed	Le Photogramme	*M. Vanderkindere*
Perspective, Aerial	Anthony's Bulletin	*G. Albien*
Perspective and Balance of Lines	Bull. French Soc. Phot.	*C. Klary*
Palæography, Photography as an Aid to	Amat. Photographer	*Hermann Schnauss*
Relief Photographs, Making of	Amat. Photographer	*Prof. Namias*
Reduction of Over Printed Carbons	Photo American	
Reproduction Direct from Drawings, Etc.	Anthony's Bulletin	*F. Alberini*
Transparencies Colored by Absorption	Photo American	*R. Defays*
Velox for Amateurs	Photo American	*R. Hines, Jr.*
View Meter, How to Make	The Camera	
Window Photography	The Camera	*F. Rayner*

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

TOLIDOL

Tolidol, the American developer, has won favor wherever given a fair trial. It works equally well on plates or paper. Its action is rapid, yet gradual and easily controlled. It does not stain. It is not injurious. It dissolves easily in cold water. It can be used repeatedly, and is one of the most economical developers known. For white draperies and delicate flesh detail and rich effects of Rembrandt lighting it is unsurpassed. It gives beautifully clear negatives, with fine gradation in the high lights as well as clear detail in the shadows.

Here is my own formula for a one-solution developer, which in its various dilutions will be found excellent:

Water	40 ounces
Sulphite soda	2¼ ounces
Tolidol	½ ounce
Carbonate potash	2¼ ounces

For Velox paper dilute with equal bulk of water, and to each ounce of this diluted developer add one drop ten per cent solution of bromide of potassium.

For plates use one part of the stock to two parts of water, with the addition of a little bromide.

WASHING

After development, negatives should be well rinsed before fixing. The trouble that arises from omitting it is apparent when the negative is left without movement in the hypo. Unless the developer (especially pyro) has been first washed away the fixed plate will have a peculiar netlike effect over the sky and other high lights. This is due to the continuance of development while in the hypo. It need not occur if the plate is moved occasionally while fixing, but any developer present will discolor the fixing bath.

HOME-MADE COLOR SCREEN

Take an unexposed lantern slide plate, as free from faults as possible and of even thickness, fix it in clean hypo solution and thoroughly wash, then immerse for a few minutes in a solution of Acme bright yellow or Bourgeois Laque-Jaune water color, dissolved in a little water to obtain the proper tint. Sponge off the surplus color carefully, and after drying, protect with cover glass, and bind like an ordinary slide. This filter is best adapted for use behind the lens.

ACID FIXING BATH

The addition of any strong acid to the hypo bath may cause liberation of hyposulphurous acid, which is fatal to good negatives. A negative that has been sulphurized looks as if it was imperfectly fixed, a milky and sometimes iridescent effect showing on the surface of the plate. When troubled in this way change your acid fixing bath to a bisulphite of soda hypo bath, which will give equally as good results and avoid the trouble.

The following formula is a good one:

Hyposulphite of soda	12 ounces
Bisulphite of soda	3 ounces
Water	60 ounces

RUBBER SLIDES

The greatest care should be exercised in withdrawing the rubber slides from loaded plate-holders, as a rapid movement given to a rubber or ebonite slide will often cause minute electric sparks quite active enough to cause fog spots. These fog spots are circular in shape and may be as large as a dime.

ALKALI IN DEVELOPERS

Alkali is used in all developers to open the pores of the gelatine to permit the developer to attack the silver salts. When this has been accomplished any further addition of alkali will only produce fog. Photographers should, therefore, be careful to use no more alkali than is absolutely necessary for this purpose. If negatives develop up gray and are lacking in brilliancy or with a slight fog covering the entire plate it is most probably due to excess of soda in the developer.

THE PACIFIC PLATE

The new Pacific Plate is making many friends among the professional photographers on the coast, who seek speed and quality combined for studio use. The new plate is clean and rapid, develops and fixes in less time than any other plate on the market, and requires less chemicals to accomplish the result. It is particularly useful for instantaneous work in the field.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY MORGAN BACKUS.

"Received of John Smith, Photographer, one photo of....., with privilege to publish same in the.....without charge, provided credit be given, or, if credit be not given, we agree to pay him the sum of $....."

The above form is a suggestion to the professional photographer, and if followed out would cause the newspapers to be more careful in publishing photos loaned to them without charge. Some such system as this would save a great deal of hard feeling and encourage the photographer to be friendly with the papers.

Nearly every professional is perfectly willing to give any number of prints of any special subject desired by the paper for the simple credit. It is certainly the most valuable form of advertising and keeps the photographer's name before the public, but when he sees a whole page of his work run without credit or pay, he is not to be blamed when he becomes a trifle sour on newspapers in general, occasioned by the lack of courtesy on the part of some one connected with the paper.

Nothing can be gained by a demand for redress, as everyone blames someone else, from the editor to the compositor. Still, it is worth while trying to establish friendly relations with all publications, for the advertising to be obtained is good, as I say, and when they find out you mean business they will certainly be more careful.

Apropos of this, some papers fine the responsible party when no credit is given. With this class it is, of course, more of a pleasure to do business, but even that does not remove a certain feeling against newspapers on the photographer's part. The only way I can see out of the difficulty is to take a receipt, as suggested, for the mutual good of both parties.

During the dull days following the holidays there is a great chance for genre work in the studio. The designers, lithographers and ad writers all over the country are constantly clamoring for new ideas in photographs around which they can write an advertisement of some manufacturer's wares. And, what is more, they pay good prices for anything accepted.

It might be a good plan to watch the magazines and see who is advertising extensively; then endeavor to make something illustrative of their goods and submit it. There are many opportunities for this sort of thing, and there is not a town or hamlet where something cannot be found peculiar to some particular style of advertising.

The time for the first salon will soon be here, and, being the first, it behooves everyone who is interested in the establishing of photography as an art to lend his earnest efforts for its success. From the character of the gentlemen who have the matter in charge, the exhibition cannot but be a success.

There will, of course, be some work of the very best photographers there, and it might be well to remember what Joshua Reynolds said:

"Invention, strictly speaking, is little more than a new combination of those images which have been previously gathered and deposited in the memory. Nothing can come of nothing. He who has laid up no materials can produce no combinations."

Therefore, study up something new and original and do your best.

Messrs. F. D. Burleigh and Clint Shafer, representing the Eastman Kodak Company, are in San Francisco.

Mrs. E. W. Moore, wife of one of Portland's most prominent photographers, was the guest of Mr. and Mrs. L. D. Hicks for several weeks last month.

Mr. H. F. Duryea of the Nepera Chemical Company is in San Francisco and will give many demonstrations on the use of Velox paper.

The license of Fresno photographers has been reduced from five dollars to two dollars and a half.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY MORGAN BACKUS.

Now that the winter is here, and with it the rainy Sundays and long evenings, there is no more opportune time for overhauling the stock of negatives.

Very often a negative has not been washed sufficiently and a film of hypo may be left on the surface which, if allowed to remain long enough, will gradually destroy the whole image, causing the loss of a valuable subject. Every negative should be looked at carefully, and if there be any indication of crystallized hypo and the negative be worth keeping, it should be well washed for hours and allowed to dry again.

But ten chances to one in sorting your negatives you will find among them a number which are no longer of value, some from which you have probably made one print a long time ago. The best thing to do is to throw them away and get them out of your road forever.

If you find in washing a negative which has been attacked by hypo so badly that the film starts to leave its support in places, and you see it will not dry back without distortion, here is the way to save it: Procure some hydroflouric acid (not hydrochloric), add about a dram to eight ounces of water, and, when the negative has been thoroughly washed, place it face up in a tray, pour on the solution, and gently rock until the whole film leaves its support. This operation can better be conducted with a white tray and plenty of light.

The film will now be found to be larger than before, but that need cause no alarm. Wash for a few seconds gently, and with the aid of a tuft of cotton float it on a clean piece of glass large enough to carry it. This is a most delicate operation, and should be carefully done. When drained of the extra water, cover it in the tray with spirits of alcohol, and with the aid of the cotton your negative will shrink back to its normal condition and be as good as new.

A clear example of procrastination being the thief of time is readily found in the fact that every one is always going to "catalogue his negatives," but never does. Winter days are catalogue days, therefore, go at it. After throwing the useless negatives away, put each good one in an envelope. Envelopes are cheap and save many a scratch. I think the best method of cataloguing is to classify the negatives, irrespective of where they were made, into a series, for instance: "rocks," "flowers," "redwoods and oaks," "city and vicinity," "landscapes," "seascapes," "on the bay and shores," "groups of friends, year——" and such other captions as suggest themselves in accordance with the individuality of separate collections. When every envelope is titled and numbered it should be entered in a book, reserving sufficient space between classes for additions. Then get a heavy cardboard box from one of the dry goods stores, and, if it does not happen to be the right size cut it down, place in it your negatives by classes, with loose partitions between. In the months to come you will be saved a deal of bother.

There is a little book published by George K. Hazlitt & Co. of Chicago, with all sorts of labels, detachable, and covering almost everything a photographer will ever use in photographic processes. At a second-hand bottle store you can buy all the wide-mouthed or other bottles or jars you wish for fifty cents, and they will wash them for you. Corks may be purchased anywhere.

With this book and these bottles it would be a nice evening's work to go over your stock of chemicals and get them out of those dirty papers and into bottles with labels on them. In this process you will probably find some important chemical short. It is not always wise to wait until the last moment to procure it, so attend to it at once. With a little expense in this matter much future time may be saved.

It is now but three weeks to Christmas, and if enlargements are to be made in time for presents the order should be placed at once. The Wetherbee Photo Company, 220 Sutter Street, possess unlimited facilities for executing any number or any style of enlarged work.

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The following card has been issued by the Print Committee, and should receive the immediate attention of all club members:

EXHIBITION AND PRINT SALE.

At the regular meeting of the California Camera Club, held on the 13th of November, 1900, the club voted in favor of an exhibition of prints, the work of the members of the club, to be displayed on our boards during the week from December 17th to December 24th inclusive. All prints must be in the hands of the Print Committee by Saturday, December 15th.

The object of this exhibition is to offer our friends and the public an opportunity of purchasing such of our work as they desire, and the club will receive a benefit of twenty-five per cent of such sales. The members must put the price upon their pictures.

Those who desire to exhibit prints, but do not wish to offer them for sale, are cordially invited to bring in their work also. A card stating that they are not for sale should be attached.

All prints or framed photographs submitted must have the price written in plain figures upon the back thereof.

Many persons will in this way be afforded the opportunity of securing some choice pictures which they would have had some hesitancy in asking members for. Photography is an expensive pastime, and to compensate the maker for his prints is not only doing him justice, but in many cases affords the opportunity for further experimental work.

SAN DIEGO CLUB.

The San Diego Camera Club has distinguished itself during the past month by adding nearly a score to its list of membership.

Mr. G. W. Anderson, Chairman of the Program Committee, has very kindly made and presented to the club a reducing box for the use of those interested in making lantern slides. The lantern exhibitions of the society are becoming very popular and our rooms are always thronged on these occasions.

The interest, naturally the outgrowth of the friendly rivalry among club members, has caused several to purchase fine new cameras, and all are striving to improve the quality of their work.

A camera club was organized in Oregon City, Or., on November 9th. Hon. A. S. Dresser was elected president and Prof. W. D. Wilcox secretary of the organization. Following are the charter members: Mrs. T. W. Clark, Mrs. Ross Holman, Mrs. T. F. Ryan, Mrs. D. H. Glass, Mrs. A. S. Dresser, Misses Ina Chase, Gertrude Nefzger, Lena Nemyer and Mary McIntyre.

The first anniversary of the Laurel Athletic Club was celebrated on November 16th with an exhibition of amateur photography. Suitable prizes were given for the best exhibit.

The question of organizing a camera club in Riverside has been agitated recently. CAMERA CRAFT is in possession of information to the effect that the club is a certainty, and that Los Angeles and San Diego will have to look to their laurels before many days.

H. C. Barley, a photographer of Skagway, Alaska, had some great experiences while attending the Kluckwan potlatch during the latter part of October. The younger Indians who attended the love feast objected to the presence of the photographer, who was compelled to part with much of his available assets as a bribe to Chief George Shortridge before he was allowed to remain. The photographer said that the potlatch was the most marvelous thing he ever saw. It was one round of feasting, dancing and making presents. Five hundred and twenty blankets and two hundred and fifty boxes of hardtack, together with great quantities of berries and oil, were given away in one day.

The members of the Alameda Camera Club have accepted the invitation of the managers of the San Francisco Photographic Salon, and are co-operating heartily in the effort to make the affair a success.

Photo supply dealers and people who patronize traveling photographers are warned to look out for a traveling photographer under the name of Evans, who takes pictures, collects all money in advance, and departs without delivering the work. His last town was Alturas, Cal.

NOTES.

Mrs. Hortense Schulze, one of the best-known women photographers of the West, has opened a studio at 116 Stockton Street during the last two months. The studio everywhere shows evidences of a woman's hand and is undoubtedly one of the most artistic in the city. The walls are filled with interesting souvenirs gathered from every quarter of the globe, and the most unique feature of the studio is that the interesting features do not stop at the reception-room. The gallery itself is handsomely finished and beams most cheerfully to the prospective subject.

Mrs. Schulze, who gained a well-earned reputation several years ago for her Chinese photos, has probably the largest collection of pictures of Chinese children in the United States, and the demand for them has become so great that the studio was almost an absolute necessity. The infinite patience and artistic ability required to gather a collection of such excellence and magnitude would deter any one except a woman wonderfully gifted with such attributes. Everyone is familiar with the pictures, and as they form the best possible souvenir of California, the demand has always exceeded the supply. This year Mrs. Schulze decided to mount some of the pictures on calendars. The result so far exceeded her anticipations that she has decided to start at once and begin the manufacture of a supply for 1902.

MRS. HORTENSE SCHULZE. THE PROMENADERS.

The progressive amateur who is on the lookout for something new will be well repaid by a visit to H. Kuster at 220 Sutter Street. During the past few months Mr. Kuster has been experimenting with brilliant finders for all sizes and styles of cameras, and within the past few weeks has reduced the science of making them to a mathematical certainty. It is now possible for the owner of any camera to change his ground-glass finder to one of the new ones at a small cost. Formerly a brilliant finder could not be procured without an expenditure of five dollars. Mr. Kuster's invention reduces the expense so that one of the new finders is within the reach of everyone.

The increasing popularity of photographs of sporting events has led many amateurs to invest in focal plane shutters, with an attendant increase in the interest of the pictures obtained. To fit one of these shutters on a camera requires the hand of an expert. Mr. Kuster has had much experience in this line of work, and some of the cameras turned out by him would do credit to the manufacturers of both shutter and camera.

In addition to this work Mr. Kuster has one of the most complete lens-grinding plants in the West, and makes, as well as corrects, lenses of every description. He also fits lenses to shutters, and now does much work which formerly went to the East.

In these days of successful photography it is unnecessary to travel to learn everything of a foreign country. Such is the conclusion reached by the editor of CAMERA CRAFT after glancing through the pages of the Christmas number of the *Press*, Christchurch, N. Z. Over a hundred photographs from which the illustrations were made were taken by Walter Burke, well known to local photographers. Mr. Burke is associated with the editorial management of the *Press*, and his friends will be pleased to hear of his success.

It is announced that Oscar Maurer and W. E. Dassonville have joined forces and will conduct a studio in the rear of Lassen & Bien's photo supply house on Stockton Street. The gallery in which the two photographers will work will be one of the most unique in the city. It is situated on a balcony in the rear of the store and is well lighted by top lights opening from a light well in the center of the building. The idea is decidedly original, and the popularity of the young men interested will undoubtedly make the venture a profitable one. Mr. Maurer is well known as one of the original workers of the city. Mr. Dassonville has been in the employ of Mr. H. B. Hosmer for many years. He is today one of the most skilled process workers we have on the Pacific Coast, and Mr. Hosmer will doubtless feel his loss.

NEGATIVE BY F. W. IRELAN. SEA FOAM.

Mr. J. G. Lamb of Lamb Bros. & Co., Wellington, N. Z., was a visitor at the office of CAMERA CRAFT last month. Mr. Lamb spoke encouragingly of photographic interests in New Zealand, and had only kind things to say of CAMERA CRAFT'S interests there.

Mr. William M. Godfrey, a pioneer photographer and the first man to open a photograph gallery in San Francisco, died in San Bernardino on November 5th of kidney trouble.

The *Record-Union* of Sacramento has in course of preparation a work entitled "Sacramento — As Seen Through the Camera." It is said by the publishers that the book will be one of the most complete from an illustrative standpoint ever published in this State.

The reception given by Arnold Genthe at his new studio, 790 Sutter Street, on November 17th, was attended by many fashionable folk who trooped through the gallery, wondering at everything they saw. Dr. Genthe's new studio is one of the most complete in the city, the interior being finished in the old Dutch style of architecture, with fittings harmonizing perfectly with the arrangement of the woodwork.

A new gallery has been opened by Sooy & Co. at 1065 Washington Street, Oakland.

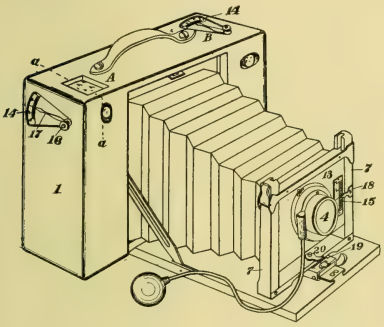
The Photographic Times Publishing Association of 3 and 5 West Nineteenth Street, New York City, make the announcement that for some time they have been in receipt of complaints regarding the unwieldliness of their magazine, *The Photographic Times*. They have, therefore, decided to reduce it to the standard magazine size and the subscription price from four dollars to two dollars per annum. Notwithstanding this reduction in price there will still be the same number of profusely illustrated pages, and the fine photogravure frontispiece (a feature of the publication) will still be given. Mr. Walter Woodbury, who formerly occupied the editorial chair for six years, will again occupy that responsible position as of old.

There is on exhibition at the Backus Studio one of the most artistic photographic exhibitions given this year. Mr. Backus has secured a complete set of the Westby series of seascapes, by Mr. F. H. Worsley Benison. The pictures are all in carbon, and some of them 18 x 22 in size. No photographer should miss a visit to the Backus Studio.

The Mecca for amateur and professional photographers during the whole of this month will be the store of Messrs. Lassen & Bien, at 139 Stockton Street. In addition to their large stock of kodaks and cameras this firm has an elaborate display of eye-glasses, spectacles, opera and field glasses and thermometers. Christmas presents are easy to procure at this store.

A NEW FINDER.

The accompanying illustration shows the manner in which the view-finder, recently patented by Mr. Charles Magagnos and Rev. W. H. Fulton of Alameda, is attached to the ordinary kodak. The device is an improvement over the ordinary finder in that the position of the image on the finder corresponds with that on the plate after the position of the lens has been changed. The patent is a valuable one, and the gentlemen interested will undoubtedly reap considerable from it.



PATENTS.

J. F. Newell, Chicago, background carrier.

W. L. Hudson, Burnley, England, printing frame.

R. E. Reardon, Ottawa, Canada, plate holder.

Edward B. Nicholson, Oskosh, Wis., rotary trimmer.

Chester W. Brown, Jackson, Mich., exposure meter.

Paul Rudolph, Jena, Germany, photographic objective.

L. J. Vogt, New York, camera shutter, in which all working parts are contained in a dust-proof casing.

A. O. Graf, Demarest, N. J., roll-holding camera, in which provision is made for the use of the ground glass in connection with daylight loading films.

PER CENT SOLUTIONS.

Per cent solutions are often misleading to the amateur, as they may be understood in various ways. Photographers generally understand a ten per cent solution to consist of nine ounces of water and one ounce of chemical. This is not correct by any means, and would not make a ten per cent solution from a chemist's point of view. Soluble salts do not necessarily increase the bulk of water, and an ounce of bromide, for example, might be dissolved in ten ounces of water without raising the surface of the water perceptibly. Suppose we want to make a two per cent solution of mercury, and the amount of solution required is ten ounces, we would proceed as follows:

One ounce contains 480 grains, and 10 ounces will contain 480 multiplied by 10, or 4800 grains. Two per cent of 4800 grains is 96 grains, and we would therefore weigh out 96 grains and dissolve it in 10 ounces of water. A ten per cent solution would be 1 ounce in 10.

NEW ALBUMS.

Among our new advertisers this month we call attention to Messrs. F. L. Schafuss & Co., 94 Reade Street, New York City, who are manufacturers of albums and mats for unmounted photographs, their principal styles being the "Star Plain Leaf" and "Star Squeegee" albums. In the "Star Plain Leaf" album this firm has solved the problem of producing an album the covers of which are flexible and free from warping or blistering. The papers or leaves used in the construction of these albums are made from their "Pure-est" stock, which conveys a positive guarantee against any discoloration of photographs mounted thereon. The leaves come in the latest photographic colors, Scotch gray, steel gray, dark green, ash and white.

The "Star Squeegee" albums are most desirable and make a perfect book for squeegeeing the photograph. When open, the leaves lie perfectly flat and are free from warping, blistering or cockling, which is a most objectionable feature in most squeegee albums. The leaves are of the popular color, Scotch gray. They are made to hold all the popular camera size photographs. These goods are bound in full cloth and imitation seal grain, and are now being handled by the trade throughout the United States, Canada and Mexico.

A recent addition to the "Star Squeegee" series is an album in eight styles, to accommodate the new Eastman Kodak size print, 2¼ x 2¼ Brownie, for which they are receiving orders in large quantities.

The Klay Holder advertised for sale by us in last month's "Camera Craft" was sold two days after the date of publication to a reader of the magazine. We are still receiving inquiries about the holder. Blauert & Widder.

WANTS.

Free to those seeking employment.
Three lines, one insertion, 50c. Three insertions $1.00.

$350 Cash — Will buy a modern, well-furnished Studio in the Mission, San Francisco; $650 worth of apparatus and furniture in sight. For particulars address L. D. Hicks, 220 Sutter Street.

For Sale — A newly furnished photographic gallery in San Francisco. Cause of selling, parties desiring to leave the city. Can be purchased at a moderate price. Address, C. P., CAMERA CRAFT office.

Expert printer desires a position. Large experience in Bromide work. Can assist in operating. Address, Morrison, care CAMERA CRAFT.

For Sale — One 5 x 7 King Poco, with $6.00 Iconoscope finder, case, one holder, but no lens or shutter. In perfect condition. Price, $20.00. Address, W. W. HALL, Hickman, Cal.

To buy a gallery in a good country town in California. Will pay a fair price. Give full particulars and describe the outfit. H. B., this office.

Wanted — Position as operator, by an artist in fancy posing and lighting, and thorough in dark-room work. Address, E. P., 3649 17th Street, San Francisco.

Wanted — To rent a gallery in interior town, central portion of the state, with privilege of buying. Address, Gallery, care KIRK, GEARY & Co., Sacramento, Cal.

For Sale — $65 cash. One 5 x 7 Series II, F/5.6, Collinear, new, fitted with Telephoto Lens and B. & L. Dia. Shutter, cost $116. H. LYONS, Elkhart, Ind.

Photographs Wanted — We wish to purchase photos of picturesque flour, grist and corn mills. Submit photos, or describe what you have and name price. MITCHELL BROS. Co., Publishers, 315 Dearborn Street, Chicago.

Wanted — To buy a gallery in the city or country, at moderate price. Address, G. J. O., CAMERA CRAFT office.

A GOOD EXCHANGE MEDIUM FOR AMATEURS.

Bring us your negatives for your Xmas prints

Let us select your Xmas presents

Kodaks and Cameras of all kinds and sizes, Indian Baskets, Fine Stationery, Periodicals and all late Magazines.

Our stock is fresh and our prices are low

Our line of CALENDARS is the most unique and artistic in the city

Goldsmith Bros.

236 Sutter Street **San Francisco, Cal.**

Camera Craft
JANUARY
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NOTE:—Subscribers who do not receive CAMERA CRAFT promptly will confer a favor by sending a postal card to this office. The omission will be supplied and an investigation made. The editors will, at all times, be ready to carefully consider manuscript and photographs. When possible, all manuscript should be typewritten.

All photo supply dealers and news dealers are authorized to receipt for subscriptions in our name. Back numbers can be obtained direct from the publishers.

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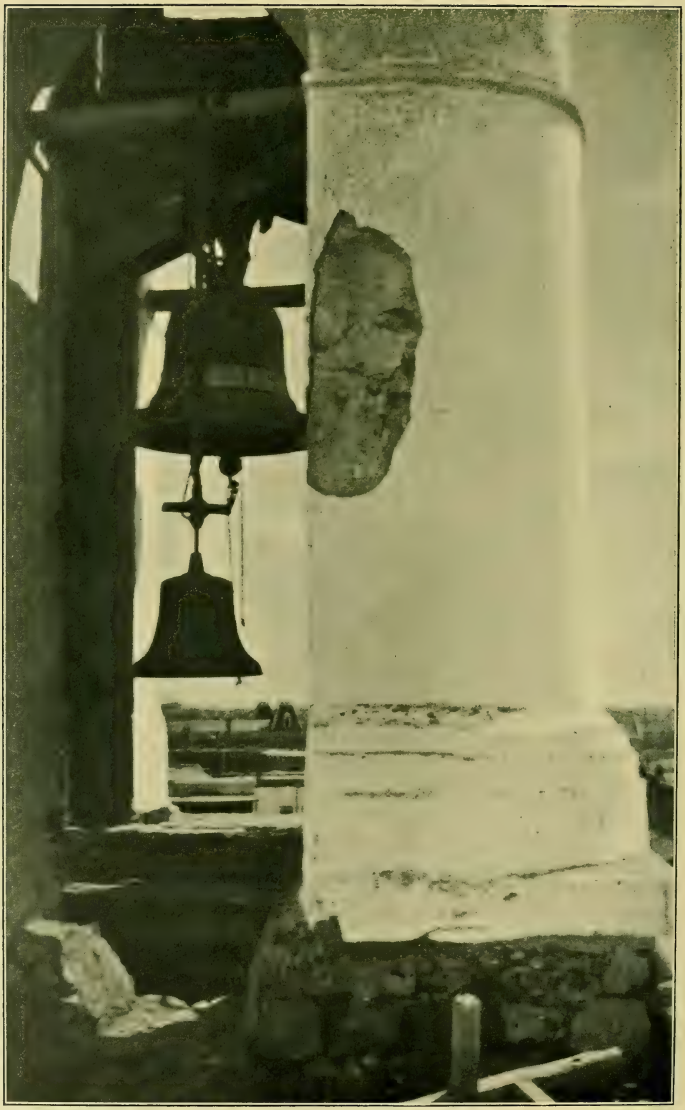

NEGATIVE BY W. J. PIATT

THE CHIMES.

FROM THE EASTERN
PRINT EXHIBIT

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, JANUARY, 1901. NO. 3.

NEGATIVE BY STECKEL.

ART, PHOTOGRAPHY AND SENSE

BY

H. D'ARCY POWER, M.D.

For several months the discussion of art in relation to photography has absorbed the attention of the photographic journals and their correspondents, but sense, common sense, the first requisite in an entangled subject, has been given too little place. Editors of photographic journals, instead of keeping open their columns to serious and quiet discussion, have taken sides with a vehemence that has sometimes expressed itself in Billingsgate and rarely in the judicial spirit from whence alone can come truth. It is not the intention of the writer to claim any monopoly of sense, common or otherwise, but merely to deal with the subject from a general standpoint and with the impartiality that results therefrom.

It requires a search over many journals and through many pages of argument to find wherein lies the basis of so much discussion, and when this is done it will be found that, while centering around the introduction of art ideals into the photographic field, the points of dissension are many and often quite foreign to the main subject. Let us try to sift them. The first and, perhaps, most fundamental is whether or not photography can ever be an art medium. This, please to remember, is not whether photographs can occasionally be pretty pictures, but whether an artist desiring to express a

feeling, or awake an emotion, may so use the camera as to give adequate expression to that which he constructs in his mind. Moreover, the form must come from within, and not by chance from without. The brush, the pencil, or the graver are pliable tools which can express either the objective picture the artist sees with the eye, or the subjective picture that exists only for him as the product of his imagination.

Now, it is this power to realize the last that is necessary in all art methods, and unless photography can effect this, it cannot be a means of producing works of art, that is, pictures born in the brain of the artist, tinged with his individuality, and capable of evoking in others the feelings in which the picture had its birth. Can photography be such a medium or not? That is the first and most important question. To this the leaders of the new school of photography give an affirmative, while not a few of their opponents avow a very decided negative. Say these latter: "Photography can only produce that which *is;* its essence is not pliability, but faithful reproduction. It is essentially true; if you bend it to make something different from that which it is its nature to produce, you degrade it, and your work is anathema."

Let us look at this from a rational standpoint. A moment's consideration will show that photography is not essentially a method of truthful reproduction. It is quite the reverse. Do you doubt this? Look at the photograph of the neighboring small store as taken by an enterprising itinerant and note its palatial proportions. Look at a dark blue vase of yellow primroses photographed on an ordinary plate. Look at the representation of your own face as registered by the ardent snapshotist, and cease to prate about degrading photographic truth. If photography be ten times as truthful as it is, that should never be a reason for not using it for effects in which truthful reproduction is neither claimed nor sought.

So much for the champions of photographic truth. Now for the weightier question as to whether it is possible to make the photographic image yield the artist's concept. If that image is to be neither more nor less than that which light and development will produce on the ground glass or the printing paper, which, unmodified, will give neither more nor less than that which is in front of the lens, distorted, perhaps, by the difference in the angle of view or falsified in tonality by lack of orthochromatism, but essentially rigid in its shades and proportions—then certainly not, for the artist would need to reproduce in external nature the whole of his concept, and not only that, but with such modifications as would be necessary to make good the defects of lens and plate.

A herculean task beyond his power; but, if he modify his negative and positive, take from it or add to it by any means in his power, treat it, in fact, as the artist treats his canvas, considering nothing but the final result, then a work of art, in the sense that I have defined it, becomes a possibility. But, say the opponents of such work, the result is not a photograph. If you define a photograph as the sole product of light and chemicals, it is not; neither are any of the pictures in the photographers' show cases, nor most of the pictures these objectors exhibit at salons and exhibitions. The fact is, the only definition of a photograph that has any meaning is that of a picture, the main outlines of which are produced by the action of light on a sensitive plate. That, with such outlines as a basis, pictures have been produced that are works

of art in the accepted sense is now beyond controversy. That many such pictures are or can be produced is more than doubtful, and for good reason. The technique is as difficult as that of any other branch of the graphic arts, the need of general art training not less urgent, and that none too common quality, the artistic temperament, a *sine qua non;* in other words, to produce a great picture by the method of photography demands a great artist, and—great artists are not common.

It is thus apparent that the discussions upon how much modification a sun picture may suffer without ceasing to be a photograph are purely academic. They are quibbles, having no bearing on the question whether or not a work of art can be produced by means that are fundamentally photographic, that is, drawn with light.

But a more serious objection is urged by some, Dr. Emerson among others, namely, that such modified photographs are hybrids, and as such intrinsically bad. Now, this latter doctrine is partly true and largely false. It is true that some media are so difficult to combine that false values or unpleasant texture is an almost necessary result, hence good artists do not use them. However, there is another element, and that is the jealous and unreasoning love of each artist for his own technique. The worker in oil looks down on the water colorist and the latter looks on pastel as frivolous; charcoal has no use for crayon, and a pen-and-ink artist in strict line considers a wash-drawing as beneath contempt. All this kind of thing is human and foolish. We have plenty of it among photographers, but it passes.

Artists in color do not mix media, because it does not work, but workers in monochrome increasingly do so, and it is becoming recognized that hybrids are not bad by a law of nature, only that some artists find it difficult to make them good. Therefore, this charge of hybridism when urged against photographic pictures comes to nothing, for there is no criterion of worth except the effect of the final product on a trained understanding.

Therefore, leaving this portion of my subject with the assertion that works of art can seldom be produced by so-called pure photography, they can and are produced by means that are fundamentally photographic, and although such pictures be charged with hybridism the charge amounts to little, for no hybrid is bad that, to the cultivated eye, appears good, and on this point the verdict of prominent artists here and in Europe is decisive.

If it be admitted that photographic works of art are possible, it is still to be decided whether those who are most prominent in the art movement produce such. Before this question is answered it must be distinctly remembered by both sides of the controversy that through the centuries different schools of art have striven and enjoyed favor, that each has worked for a large class whose sympathies responded to its appeal, and each has to that extent represented a truth, for, as men's longings and aspirations are many sided, so must be the art which quickens them into life.

It is the same in music. One man's feelings are expressed by Offenbach, another by Mendelssohn, a third is stirred to the depths of his soul by Beethoven, while his neighbor has no use for Beethoven but thinks ragtime melodies are a creation of heaven. It is so with all the arts. If they are to express and satisfy the world, they must be as varied as the world, and above all they must

voice the feelings and aspirations of their own time. Schools of art that were dominant in times gone by have an interest for us in that they express what we and the past still feel in common, and to a few who, perhaps, in spirit belong to that past, are living things. Still the mass of our time is not moved by them and never will be. We do not sing the songs of the last century, and although they be often resurrected at concerts they are not whistled next morning. We may learn to appreciate what is good in preraphaelite pictures, but they do not stir the feelings of any large portion of the present world, and are dead as a living influence on the masses.

I make these remarks because we shall not be able to judge of the works of the existing schools of American photographic art without bearing them in mind. When we have as many schools represented among photographers as we have among painters we shall have less sweeping criticism of their work. It is unfortunately true that so far the movement has centered in a few men of strong, but not very catholic tastes and their imitators. Hence the sameness of which even favorable foreign critics complained in the American exhibit abroad.

This being so it naturally, although wrongly, follows that the majority of those who fail to find anything to their individual liking lose the critical spirit and indulge in foolish and universal condemnation. Those who merely show their dislike by empty abuse or cheap witticism, the writers who criticise a picture by calling its author a "gumsplodger," or the editors who make fun of a process the results of which they elsewhere admit to be beautiful, these may be well left to die, as all foolish things die. Such methods may gain cheap popularity from the unthinking, but they convince no earnest worker, and

NEGATIVE BY R. C. CASSELL

CROSS-ROADS.

none but earnest workers are of use in the art movement, which above all things demands study, work and devotion.

If we come to definite charges we have several that require consideration. There is first that of indefiniteness, which goes under the appellation of fuzzy-wuzzyism. When the eye views a landscape it sees some objects distinctly, some less so, and some scarcely at all, but the eye moving rapidly from one plane to another blends the whole, the mind not being conscious of anything excessively sharp or very fuzzy. Secondly, the presence of atmosphere weakens the values of all distant objects. But what happens if we photograph such a scene? If we use a full aperture lens, only one plane can be sharply focused, and that will be very sharp; all others will be fuzzy in various degrees. The planes of a photograph being seen by the eye all at once, no such blending is possible, as in the case of the natural scene. On the other hand, if we use a small stop all planes become equally sharp, and as such photographs require a longer exposure, the dimming effect of the atmosphere is lost and the resulting picture is sharper all over, lacking distance, and even more unnatural than the first method. Not a few workers, to avoid the latter effect, have sought the blended effect of the natural scene by placing all objects slightly out of focus, and in moderation they are justified by their results. On the other hand, it cannot be denied that the method has been greatly abused, even by workers of eminence. No eye but one affected by disease can see all parts of the field of vision out of focus, and no artist is justified in offering to the public pictures that are only natural to men with diseased optics. The fact is that the lens alone is not capable of giving the various planes of a picture as the eye sees them, and unless it be supplemented by non-optical methods a natural, and therefore an artistic, picture is not possible.

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Dr. Emerson has charged the workers in gum-bichromate with producing false values, and, doubtless, the charge can be sustained against individual exhibitors, but certainly not against all. If some can produce true results it

is the individual, and not the school or the method, that must be held responsible for failures. Yet another complaint is that most of the art school of photography work in too low a scale of tones. Their pictures are gloomy and depressing, say their critics. The writer believes the charge to be, in a large measure, true. Doubtless, there are those who care for no other type, but there are more to whom this type of picture appeals, and yet have it in their heart to rejoice in the sunshine, but they look in vain among recent exhibits for a photographic representation of it.

It is in connection with this somber work that the most censurable errors have been perpetrated. We have evening skies, by salon medalists, resting over landscapes with mid-day shadows. Such things are inexcusable and consign workers and judges to the ridicule of men who are versed in the elements of art. Others complain of excessive suppression of detail. This may be a defect of a few workers, but the average photograph errs so terribly on the other side that a reaction is natural and excusable.

Some recent remarks of Mr. Horsley Hinton on this point are very pertinent. He points out that there are two classes of picture lovers; those who take an intellectual pleasure in them, reading therein a story or being reminded of an experience, or, perhaps, being acquainted with the technique of their production, derive satisfaction from studying it in the examples they examine. But there is a second class of picture lovers whose pleasure is entirely different, inasmuch as it is purely emotional. Their interest is in beauty of line, color harmony, and the effects of contrasted masses of light and shade. They care little whether a picture tells a story or recalls a locality; with them pictorial effect is something felt and not reasoned about. We have the same thing among the auditors of a concert. Some want to hear the words of a song, and others only care to listen to the music. These two classes rarely understand one another, and all argument as to which is right is useless, for in the nature of things both are right in so far as their own case is concerned; each must seek his own and leave the rest for him who enjoys it. *Chacun a son gout.*

But even for those whose pleasure in a picture is intellectual it is not to be forgotten that every unnecessary detail depicted takes from the force of the leading impression. I am acquainted with a gentleman, a good photographer, who persists in getting out the details of a man's coat as clearly as the character lines on his face. If you ask him why, he answers, "Because they are there." This shows that his work is the result of his intellect and not of his perception, for if he were guided by the latter he would care little for the coat, inasmuch as in life no one can study a man's face and coat at the same time, although, when reduced to a small photograph, you cannot do otherwise.

Other critics of the New York school charge the members of that institution with slavishly imitating the effects of other media; making pictures to look like charcoal studies, wash drawings or reproductions of paintings on canvas. Undoubtedly this has been largely done, and, in the opinion of the writer, such things are utterly foolish, if not censurable. The grain of canvas is a defect from which photographers are fortunately free; it takes from, rather than adds to, the beauty of the picture traced upon it. The man who chooses photography as his medium of art expression should seek to develop

NEGATIVE BY IMPERIAL STUDIO.

A NEW MOUNT.

MOUNT FROM STUPARICH MFG. CO. PATENTED.

the *intrinsic* beauties of that medium and not make copies of some other. If he thinks charcoal is a better medium, or more suited to his tastes than any photographic printing process, let him, by all means, learn to draw in charcoal, and he will do better in charcoal than in photography, for no man can adequately express himself in a medium with which he is not in sympathy. The same is true of copies of extinct types. I recently saw a photograph modeled on the lines of an old Dutch painting. It was excellently done, but, for the reasons given, it was not art.

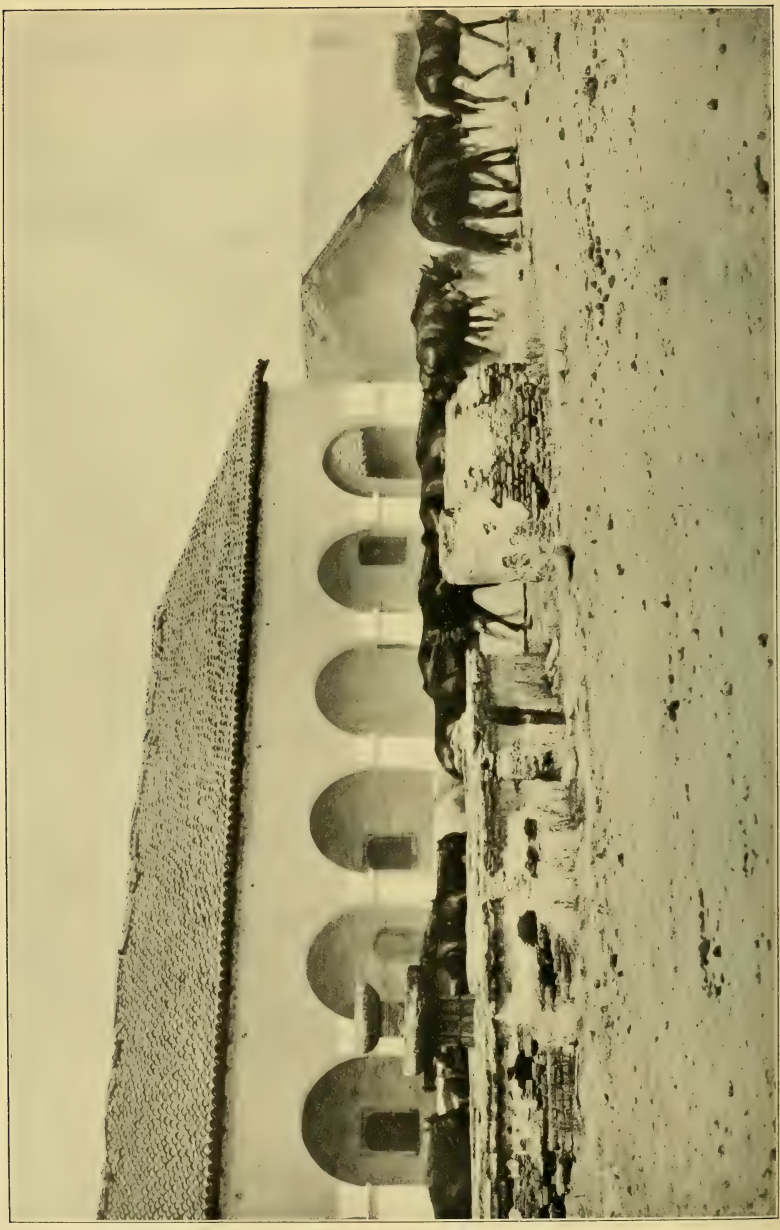
Finally, there is a charge that those who are at present leading in the art movement have assumed a dictatorial position and arbitrarily determine what is or is not art photography. If such is the case it is most unfortunate, for we are not yet sufficiently advanced for any small coterie to set up rigid standards. If the charge be true, which I am neither in a position to concede nor deny, the evil can be of but short duration, and as the field of workers enlarges it will bring its own cure. In any case, it has no bearing on the main issue, whether or not we are to have a photography ranking among the fine arts.

In conclusion, let me say I have dealt with some of these issues at length because they are important. I have sought to deal with them impartially, testing them by that standard of common sense by which all should be guided. When so viewed, I cannot but believe that photography is destined to take, and is, in fact, now taking, its place among the fine arts, and that those whose labors and inspirations are placing it there are deserving of our heartiest support. That their results are often imperfect and, in the case of some of their followers, even ridiculous; that their existing standards of beauty, so far as we can see by the results, are too narrow, may well be conceded. Nay, we may even gently censure a large part of their work and yet have no reason to other than commend the movement as a whole. The merits of a system are not to be measured by the weakness of its disciples. These will die, but the movement will live and give us new forms of beauty, new inspirations, and maybe a higher realization of the art ideal.

The Sacramento Valley Development Association wants photographs of orchard views, large and thrifty deciduous trees, orange orchard views, live stock in meadows, yards, etc., to be used in illustrating the industries of Glenn County in an edition of *Sunset* soon to be published, and the local artists and citizens who have any such views are requested to send them to Frank S. Reager, Willows, Cal. The photographs should be not less than 5 x 7 inches in size and need not be mounted.

NEGATIVE BY VAUGHAN & KEITH.

PORTRAIT.



A MISSION STUDY ON THE NEW COAST LINE.

THE OPENING OF A NEW FIELD.

BY PAUL SHOUP.

NEGATIVE BY W. A. VAN EPPS.

IN THE next several weeks it is quite probable that through trains will be running between San Francisco and Los Angeles via the new Coast Line of the Southern Pacific. Artists and photographers who have been up and down the line of the new road have been quick to appreciate its beauty, and there is little doubt but that the new line is really deserving of the appellation already given it — the all-year scenic route of the world. Few have been fortunate enough to go over the new grade all the way, and for that reason photographs of the scenery between Gaviota and Surf are inadequate. There is no wagon road between these places via Point Concepcion and Point Arguello, and inhabitants are few and well hidden in the wooded canyons away from the shore. In traveling from Gaviota to Surf over the new grade only one person was met aside from the railroad workmen and the lighthouse tenders at Point Concepcion. It will not be so after the new route is open long, for if there are fairer lands or more delightful climates than are found eastward from Point Arguello, they are as yet unknown.

The beautiful shore line of the Southern Pacific from Ventura to Santa Barbara is well known, as, indeed, is the road up over the mountains to San Luis Obispo, and thence down the oak-dotted Salinas Valley and northward through the Santa Clara. But the most beautiful part of the road now nearing completion, between Surf, near the mouth of the Santa Ynez River, on the north and Santa Barbara on the south, is to the world at large absolutely unknown.

The coast country between Santa Barbara and Surf may be described, in a general way, as having a sea front of an almost continuous cliff from twenty to one hundred feet high, and from this an upland stretches back for distances varying from a few miles down to nothing where the mountains thrust an ambitious arm oceanward. As a rule, the mountains north of the coast, east of Point Concepcion, are fronted by lower hills, separated by deep canyons, but for a large part of the distance the upland or bench is at least several hundred yards broad.

The cliffs are footed with fine beaches — mile after mile of white, clean sand — and at Jalama Creek, midway between Point Concepcion and Point Arguello, my friend O'Brien of the engineer force told me that the bathing was fine in January, and that it was the practice of the camp to have its daily swim. I know that the bathing is fine in July. There are no prettier cliffs, beaches and headlands than those found in the vicinity of Point Concepcion. The mountains that parallel the coast from the eastward dwindle down

here into hills and then into headlands, as if the land had been drawn out from some immense mountain in the interior. Point Concepcion is a smoothly ovaled headland that ends abruptly in an immense rock several hundred feet high, and is half buried in sand on its shore side. The top of the rock is given over to the white buildings of the lighthouse keeper's home. From here is obtained one of the finest ocean views in the world, with the waters of the Santa Barbara Channel to the left and the endless Pacific to the right. The lighthouse itself is below the top of the rock and on the sea side. To get supplies to it they must be hauled up to the summit and chuted down its almost perpendicular face. Some day a trip up to the summit of this magnificent headland will form a part of the itinerary of the ever-enterprising sightseer. The water of the Santa Barbara Channel east of the point is of beautiful hues, varying from a light green to a deep indigo, just as does the water of Lake Tahoe. The mountains are picturesque, with many sharp peaks, and the canyons are well wooded with oaks and sycamores. The great sycamores of the canyons are one of the features of this section.

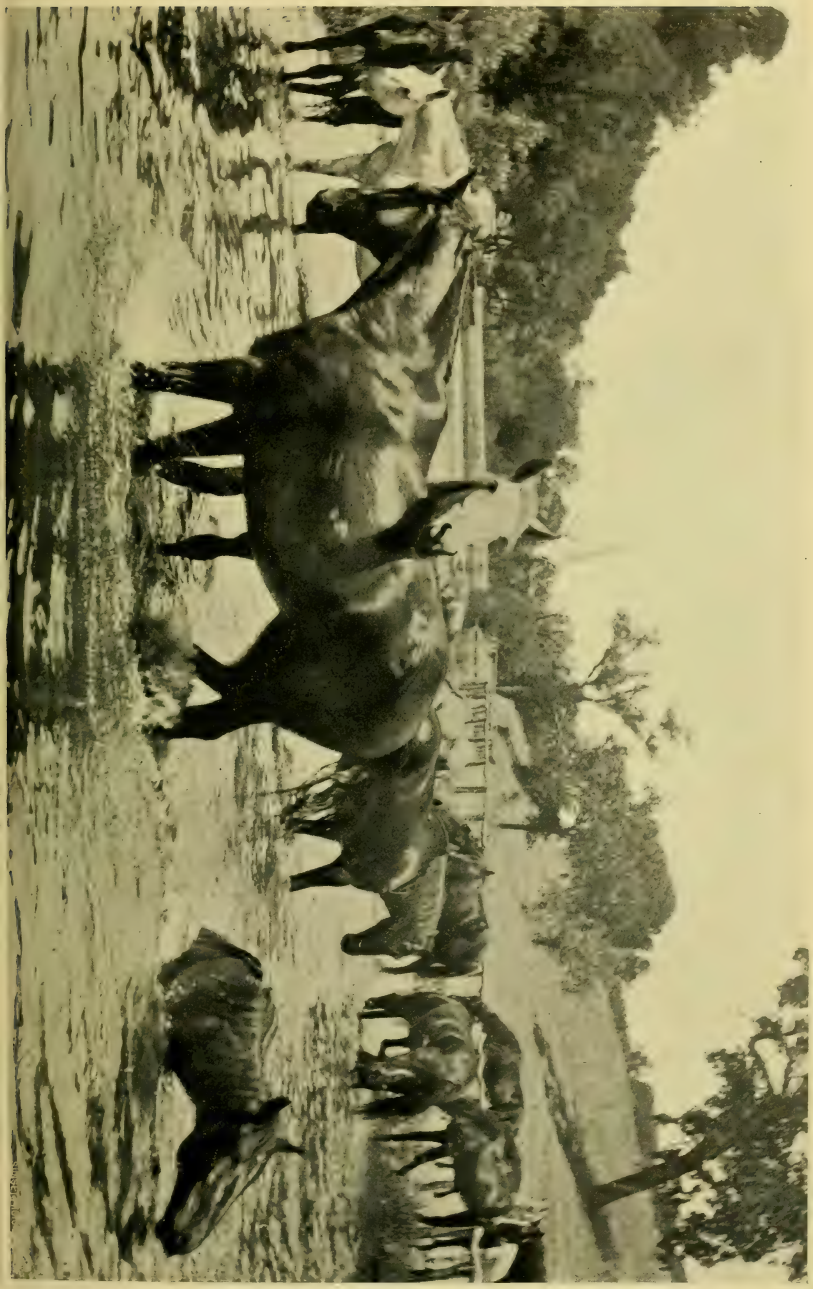
The railroad travelers between Northern and Southern California and those of the Sunset Route to and from the East, will have the greatest cause for rejoicing. Not only has the new route the finest all-year climate of the world—you might with reason start a health resort at almost any point on the line—but the railroad engineers have planted their track on the edge of the cliff, so that the passenger will feel as if he were riding in the air with the prettiest ocean channel in the world spread out before and beneath him. There is a hundred miles of this winding ride along the edge of the cliffs, and in a very few years it will be one of the famous trips of America, while the shore of the Santa Barbara Channel, from Ventura to Point Arguello, will be a series of all-year resorts like Santa Barbara.

The Coast Line is, for almost its whole distance, built along El Camino Real, the King's Highway of the Franciscan fathers and the early Spanish governors. The Coast Line will be the Old Mission route. San Fernando, Bonaventura, Santa Barbara, Santa Ynez, La Purissima, San Miguel, San Luis Obispo, Soledad, San Antonio, San Carlos, San Juan Bautista, Santa Cruz, Santa Clara—these are names that speak of the Franciscans' work.

Of the resorts, Hotel del Monte, Santa Cruz, Paso Robles, Santa Ysabel and Santa Barbara are already world-known, while many others await but the completion of the Coast Line to make them famous.

Taking it all in all, the new through line promises a great deal to lovers of beauty and romance and adds a delightful route to the main traveled ways of California. It will be of great interest to photographers and opens a new field to the landscape man. It will doubtless be of great benefit to the State, and in a short time become one of the chief factors of the work now in progress toward making California the most popular all-year resort in the world.

The next number of CAMERA CRAFT will contain one of the most complete presentations of a photographic salon ever given by a photographic publication. Extra copies should be ordered from supply and news dealers at once. There will be no advance in price.



A PRETTY FRAME OF CREPE TISSUE.

An amateur fad growing in interest is the production of daintily matted prints for presentation on all occasions. The increased appearance of a print, handsomely mounted, is well worth the small extra outlay of time and expense, and is doubly appreciated by its recipient. One of the prettiest methods of preparing prints in this manner necessitates the use of crepe tissue paper instead of the usual mat. The tissue can be procured in hundreds of different patterns, and in harmonious shades and figures, so that there is much

NEGATIVE BY LEE MOOREHOUSE. MAT FROM DENNISON.

latitude for artistic taste. The first step in the work is to prepare a mat of ordinary cardboard in the shape desired. The opening having been cut, the tissue is placed across the entire mat and pasted over the edges. With a sharp knife the tissue is then split in three different ways across the opening in the mat, folded under and pasted. The whole is covered with a glass of the right size, and the edges secured with passe partout binding.

PROGRESS.

The noble and the true with earth sweep on
To share the final triumph of mankind;
The godless and the lawless—they are gone
To be forevermore as dust behind!

Elwyn Hoffman.

NEGATIVE BY O. V. LANGE.

CHRYSANTHEMUMS.

THE CHOICE OF PLATES FOR LANDSCAPE WORK.

By Henry G. Abbott.

The average amateur is often at a loss to determine just what plate he will use for landscape photography. The choice of a plate is a very important step, particularly if the day is to be spent in the woods. Very naturally he says: "I shall use an instantaneous Isochromatic or Orthochromatic plate and a color screen, because with these plates and the screen I will get true color values, and my sky and cloud effects are also important." So he loads his holders with instantaneous Isos, and feels that he has done the right thing at the right time. He makes six or eight exposures very carefully, and can hardly wait to swallow his supper, so anxious is he to start development.

Upon development, he finds that his exposures have been properly made and that his plates come up nicely in the developer, and one by one they are rinsed and dropped into the hypo box. After they are all developed he starts to wash them, and one by one takes them to the strong light to critically examine them before placing in the washing-box. Horrors! Every plate shows more or less black patches among the trees. He knows what this means if he has had any experience. He knows that it means halation, and that when he comes to make his prints these dark patches are going to cause nice white spots to appear on the prints, and he further knows that the branches of the trees in the immediate vicinity of these dark patches are going to have a faded, weak, sickly appearance, as though a fog had suddenly developed in this particular part of the landscape. He says mean things about the man who invented halation, and he makes a resolution that hereafter he will use nothing but non-halation plates when exposing on wood openings.

Smilingly he goes forth on his next trip, loaded with non-halation plates. He under-exposes more than half of them, because he did not know that a non-halation plate requires a longer exposure than an ordinary one. He finds, too, that they are very slow to develop because of the double emulsion upon them, and he waits and waits for them to show an image through the back when developing. (You smile just as though you had been there.) Final result: Plates which do not show any halation—neither do they show any clouds nor true color values. He is half sorry that he did not use Isos in spite of the fact that they show halation. He scratches his head and wonders how it is that some people can get negatives which give good color values, show fine cloud effects, and yet there is no trace of halation. He joins a camera club and talks with the members, and at last he strikes up an acquaintance with a man with a large head, who used to photograph in the days of wet plates and who knows all that is worth knowing about photography. He tells him that he must sacrifice something. If he gets color values he must put up with halation, and if he avoids halation he must be content to dispense with the beauties of color value and clouds. Then the man with the large head takes him by the arm, away from the maddening crowd, and in a hoarse whisper informs him he will put him next the right thing if he will keep it quiet. He crosses his heart three times, promises by all that is good and holy he will never divulge the secret, and invites the gentleman out to take something.

In front of a little, round, mahogany table, in an atmosphere laden with the perfume of mint, nutmeg and spirituous liquors, the gentleman with the large head starts to explain that the only thing to do is to use the Iso plates and remove the halation, which is easy. All you have to do is to wet a piece of chamois leather with ninety per cent alcohol and rub the negative vigorously, when the halation will disappear. The young photographer is grateful, the gentleman with the large head smiles benignly, like a philanthropist at the annual meeting of an orphan society, and they take some more.

The next night, armed with chamois and alcohol, the young photographer rubs vigorously at the halation spots from 7 to 11:48 P. M., and as nearly as he can estimate, the next morning, after taking another proof, has brought out one leaf a little clearer than it appeared in the first proof. (Now you are smiling again. Have you tried it? Great thing, alcohol.) After spending several evenings and a whole Sunday morning on this negative, he suddenly makes up his mind that he didn't believe that large-headed man knew anything about photography.

Monday he buys an annual, and there he finds the whole thing in a nutshell. It is only twelve pages, but it is like getting money from home. The writer tells all about how to make and apply backing to plates, and he can hardly wait until morning to buy the ingredients. The next night he goes into the kitchen and prepares the backing, and the neighbors wonder whether a murder has been committed in the neighborhood, and if someone is not trying to burn the evidence of the crime.

The backing at last being ready, he starts with a new box of Isos in the darkroom and prepares to back them. For the first time in his experience he finds the darkroom rather small. It seems to have shrunk somehow, and his fingers are all thumbs. He gets backing on his hands, his coat, and the emulsion side of the plate, but somehow that which was applied to the glass side of the negatives looks streaky. He determines to try six plates only and see how it works. He sits down quietly in one corner of the darkroom and waits for those plates to dry. He touches them every few minutes to see how they are getting on. Finally, after waiting for several hours, he determines to risk them, although they are not quite dry, and so he puts them in his holders, fastens the slides, blows out the darkroom light and creeps quietly off to bed to dream that he is a great chemist and that all the amateurs in town are after his formula for backing.

The next day he "lays off" from work. How can a man work who is on the verge of discovering one of the greatest advances of the century in photography? He hies him to the woods, exposes those six plates, and immediately retires to the privacy of the darkroom. Soon the atmosphere of that darkroom is blue with oaths and the sulphurous fumes creep out around the door and the ventilating holes next the ceiling. The cursed plates are stuck fast in the holders. Carefully, with hammer and chisel, he removes the fragments of glass, all that is left of his six glorious Isochromatic plates, and vows that he will never buy another annual.

He purchases a jar of Professor Punk's Anti-Halation Backing, and again "gets stuck on himself." He washes it off, or thinks he does, and develops, and in the red light of the darkroom does not discover that his developer has

assumed a beautiful, rich brown tinge, and that his negative has also acquired that red cast which gives such excellent printing qualities to negatives developed with hypo.

You, gentle reader, have never passed through this experience, or if you have, you say nothing about it. I have been through it clear to the finish. Seriously, it is very discouraging, and the worst feature about it is that you are no better off at the end than when you started. Color-value plates are the only ones for photographing in the woods, for not only do they give true color values when used with the ray filter, but they also give atmosphere, a sense of distance and perspective not found in negatives on ordinary plates. Halation spots mar and almost offset the virtues of the color-value plates, and so the see-saw has gone on. The Acme Halation Destroyers, which have recently been placed upon the market, have solved this perplexing problem, and by their use it is now possible to use Isochromatic and other color-value plates without getting the slightest trace of halation. For the benefit of those who have never used them I will say that they are sheets of black paper, similar to the paper in which plates are packed, coated with a chemical composition which, it is claimed, absorbs part of the light which penetrates through the film of the plate and reflects the balance of the light at a right angle, so that it does not pass back through the plate. With a ray filter of medium density I can get splendid results in color value and total absence of halation. These sheets I have found, too, are very valuable in interior work, and especially valuable in snow scenes and flashlight exposures.

NEGATIVE BY F. E. SCHUMACHER.

RASTUS, SHADRACH, HENERY JACKSON.

NEGATIVE BY CHARLES B. MEEKER

THE EASTERN PRINT EXHIBIT.

WITH A FEW OF THE PICTURES.

The New York Camera Club recently undertook an innovation that should be productive of much and lasting benefit to the camera clubs of the United States. It has requested from a number of the larger clubs a set of prints for exhibition on its walls, promising in return a set produced by its own members. The educational advantages to be derived from such an interchange cannot but be great.

While the slides of the Interchange have given the different clubs some idea of the work of other clubs, they necessarily could not present the medium of the print, the color values or the harmonious mountings or mattings. The same criticism may be extended to the reproductions of prints in the magazines, which have been the basis of much of the current comment anent the "gum" and "fuzzy" pictures. By exchanging the prints, surrounded by favorable conditions and hung on the club walls for several weeks, it may be that the absorbing discussion of "schools" and "media" may be modified and turned into other channels.

The California Camera Club recently forwarded its set of prints, which will be exhibited in the rooms of the New York club this month. Among its contributors were Arnold Genthe, W. J. Piatt, Oscar Maurer, Chas. Meeker,

NEGATIVE BY W. J. PIATT.

DUSK.

W. J. Street, W. E. Dassonville, Dr. H. D'Arcy Power, Miss Laura M. Adams and A. L. Coombs.

While the exhibit is necessarily incomplete, having been gathered during the holiday season and in the midst of the preparation for the salon, it is characteristic and will compare favorably with the work of other clubs. Four of the prints are reproduced in this number, one of them, "The Chimes," being a particularly charming composition by Piatt. The "Marine," by Maurer, and Meeker's "River," will undoubtedly attract attention.

It is thought that the set of prints from the New York Club will be received shortly, and its arrival is awaited with interest by the club members.

NEGATIVE BY OSCAR MAURER. THE EASTERN SHORE.

EXPERIMENTS WITH THE AGFA REDUCER.

By C. H. Bothamley, F. I. C., F. C. S.

The Agfa reducer, which is a novel and specially prepared combination of ferric salt and an alkali thiosulphate, comes into the market as a granular, yellowish white powder, contained in an orange glass bottle fitted with a metal screen cap. Underneath this cap is a glass stopper provided with an India-rubber washer, so that when the cap is properly screwed down an air-tight point is made. The under side of the stopper is hollow and serves as a very convenient measure for the substance. When filled level to the top it holds about five grammes, the proper quantity of the stuff for making 50 c c of solution.

In order to prepare the reducer the measure full of the solid is dissolved in 50 c c (1¾ fluid ounces) of soft or distilled water; the solution, being easily and quickly made without heating of the water, is vigorously shaken for a short time. This quantity is ample for a quarter plate, or 5 x 4 negative, and in a really flat dish can be made to answer for a half plate, but if necessary a larger quantity of solution can, of course, be made up, the solid substance and the water being always kept in the same proportion, *e. g.*, two measures of the solid for 100 c c (3½ fluid ounces) of water, and so on.

The best plan is to turn the measured solid substance on to a piece of paper and then gradually drop it into the water, which should be kept in motion. If the solid is thrown in a mass into still water it is liable to form a kind of cake, with the result that the process of dissolving takes considerably more time.

The solution is poured over the negative, previously well soaked in water, and the dish is rocked gently. The reducing action begins almost immediately, proceeds regularly and takes place in a remarkably even manner. The change is readily watched, and when reduction has gone far enough the negative is well rinsed with water and afterward well washed in the ordinary way, and the process is complete. Nothing could be more simple. The time required varies with the degree of reduction desired, and also, to some extent, with the nature of the plate (hardness of the gelatine, etc.), but in ordinary cases of over-developed negatives I find that about five minutes is usually sufficient.

Lantern slides and diapositives can also be satisfactorily reduced in the same way. The color, if originally warm, becomes somewhat colder after reduction.

Bromide prints can likewise be successfully reduced by the Agfa reducer, though if the desired reduction is slight it is advisable to dilute the reducer. Contrary to what happens in the case of diapositives, the color seems to be, as a rule, a little warmer after reduction. The process is very convenient in the case of slightly over-printed Bromide prints.

Direct experiments made by printing on Print-out papers from the same negatives before and after reduction show that the action of the Agfa reducer is practically proportional to the opacity of the image, and consequently the gradations and contrasts of the negatives are substantially the same before and after reduction. For this reason the Agfa reducer is especially valuable in the case of negatives and positives that have been over-developed without being

fogged. There is a slight tendency toward increased contrasts in the reduced negative, but in my experiments it was only very slight.

It is important to mention that soft or distilled water must be used for making up the reducing solution. When very hard water is used a certain quantity of a brown precipitate is formed. If, through the use of hard water, the negative or positive should acquire a slight brownish yellow stain, this can readily be removed by immersion for a short time in a weak alum solution to which a small quantity of oxalic acid has been added.

The same quantity of reducing solution can be used for two or three negatives in succession, though its action naturally becomes weaker, and it is important that it should not be exposed for any length of time to bright daylight. The solid substance itself should also be kept in the shade.

The Agfa reducer is not only efficient and easily worked, but it is also particularly convenient, a point of importance in view of the fact that reduction is only an occasional operation. It is very compact in form and is always ready for use. The making up of the solution is simple and rapid and involves no weighing.

WAWONA, THE CHRISTMAS SUPPLEMENT.

Since the Christmas number of CAMERA CRAFT was broadcasted over the country the business office has been flooded with requests for additional copies of the big three-color supplement, "Wawona." The wonderful beauty of this reproduction of California's greatest wonder, the giant of the Mariposa Grove of big trees, has attracted the attention of art critics everywhere. Never before has such a photograph been reproduced. Never before has such a photograph been made. Mr. Howard Tibbitts, photographer of world-wide reputation, a man who has made thousands of big-tree pictures, says that it is the best thing he ever did. The demand was so great for this picture that the extra supply, printed in anticipation of the demand it would create, was exhausted a week after the magazine was issued.

However, a new edition has been printed, with even more care than was bestowed on the original supplement. The same art paper has been used and the natural coloring of the wonderful big tree grove has been faithfully reproduced. Copies are now for sale at the business office of CAMERA CRAFT, 220 Sutter Street, or will be mailed in a strong mailing tube, carefully wrapped, for ten cents a copy.

A number of the pictures have been matted on heavy beveled mounts of a harmonious shade, without printed matter of any description, making one of the most interesting California souvenirs obtainable. The mounted prints are sent in a photo-mailing envelope for fifty cents.

Many inquiries have also been received as to copies of Charles Wiedner's "Cobbler." A supply is still on hand, and copies are still being sold at five cents. The "Cobbler" is also sent in a strong mailing tube, and in connection with "Wawona," forms an interesting pair of pictures.

SCENE NEAR GORGONA. *From a sketch made in 1850 by Charles Nahl.*

SICK PASSENGERS ON SHIPBOARD. *From a sketch made in 1850 by Charles Nahl.*

ACROSS THE ISTHMUS IN EARLY DAYS.

ILLUSTRATED WITH SKETCHES MADE BY CHARLES NAHL IN 1850.

To the younger generation of Californians the expression, "Across the Isthmus," means but little, yet to the pioneer who made the trip when the tide of immigration set westward to the Pacific Coast the expression brings to mind a trip, the recollection of which causes the heart to kindle and the blood to grow warm. Historians have made the trip across the plains in '49 a thing of romance. Novelists have utilized its varying opportunities for exciting fiction, while poets have sung the praises of the sturdy pioneers who led the way across trackless plains and arid deserts to the land of gold. So ever present is the story of the overland voyage to California in the minds of the younger generation that the fact that thousands of pioneers reached California by other means has almost been lost sight of, except in the ranks of those who made the perilous trip either by way of Cape Horn or across the isthmus.

Today the library shelves contain volume after volume setting forth, in thrilling detail, the adventures of those who crossed the plains, while he who seeks to find an account of the voyages of the thousands who reached California by other means must depend upon the published diaries of a few hardy adventurers and a chapter here and there appended to the histories of early California, incomplete and unsatisfactory.

Had photography been a perfected science at this time, how rich would have been the annals of the pioneers. With what romance the voyages across

THE DINING-ROOM ON SHIPBOARD. *From a sketch made in 1850 by Charles Nahl.*

the plains and by the isthmus would have been invested. The only pictorial records contained in the early narratives are crude and unsatisfactory. The processes of reproduction in the fifties were limited and very expensive, so that an illustrated volume was a luxury few publishers cared to produce.

When Charles Nahl, the artist, undertook the trip to California in 1849 by way of the isthmus, he must have had in mind the possibilities of the future. At every step of the voyage he paused to transfer the life and nature of the country to paper. No matter how short the stay, his brush and pencil were at work, and when the trip was finally completed his sketch book was filled with a pictorial record portraying, with minute exactness, every interesting incident and feature of the pilgrimage. Compare some of the pictures reproduced with the following extract from the diary of one of the early travelers:

April, 1850.

At eight A. M. Chagres was reported in sight, and as we neared the land it presented an appearance far from inviting. The American steamer "Cherokee" ran into the anchorage with us and immediately disgorged five hundred American citizens in red and blue shirts. I landed with as much expedition as possible and commenced at once to bargain for a canoe to take me up the river. This I at last effected at an exorbitant price and the express condition that we should not start until sunset. A few months back the native Indians of this place considered themselves amply repaid with a few dollars for a week's work, but since the California immigration has lined their pockets with American eagles they have assumed American independence, and now the civilized traveler, instead of kicking the naked aborigine into his canoe or out of it, as his humor prompts, has to bargain with a "padrone," as he calls himself, dressed in the colored muslin shirt and a Panama hat, with a large cigar in his still larger mouth; and has not only to pay him his price, but has to wait his leisure and convenience.

The town of Chagres deserves notice, inasmuch as it is the birthplace of a malignant

fever that became excessively popular among the California immigrants, many of whom have acknowledged the superiority of this malady by giving up the ghost a few hours after landing. Most towns are famous for some particular manufacture, and it is the fashion of the visitors to carry away a specimen of the handicraft. So it is with Chagres. It is composed of about fifty huts, each of which raises its head from the mist of its own private malaria, occasioned by the habits of filth and offal which, putrifying under the rays of the vertical sun, choke up the very doorway.

On the thresholds of the doors, in the huts themselves, fish, bullocks' heads, hides and carrion are strewed, all in a state of decomposition, while in the rear is a jungle, and a lake of stagnant water, with a delicate bordering of greasy blue mud. As I had with me my man Barnes and three large bloodhounds, I hired a boat of extra size, capable of containing us all, together with the baggage, this being preferable to making a swifter passage with two smaller canoes and running the risk of separation. At about three we started, the Cherokees in boats containing from ten to a dozen each. All was noise and excitement — cries for lost baggage, adieus, cheers, a parting strain on a cornet, a round dozen, at least, of different tongues, each, in its owner's own peculiar fashion, murdering Spanish. A few discharges from rifle revolvers rendered the scene ludicrous and had the good effect of sending us on the first step of a toilsome journey in a good humor. So up the river we went, and as Chagres disappeared behind us we rejoiced in the purer air. There is an absence of variety in the scenery of the Chagres River, as throughout its whole length the banks are lined to the water's edge with vegetation. But the rich, bright grain at all times charms the beholder, and the eye does not become wearied with the thick masses of luxuriant foliage, for they are ever blending in harmony, now appearing in the air in bold relief against the sky, now drooping in graceful festoons from the bank, causing their own reflections in the stream beneath.

Every growing thing climbs to and embraces its neighbor most lovingly. Here is a bunch of tangled parasites that bind a palm tree by a thousand bands to the majestic teak, and having shown their power, as it were, the parasites ascend the bottom branch of the teak and devote the rest of their existence to embellishing, with rich festoons of their bright, red flowers, the pair they have thus united.

The teak, which is here a very bald tree, is well wrapped, forming a kind of wig to hide the

CHAGRES. *From a sketch made in 1850 by Charles Nahl.*

infirmities of age. Here is a tight and well-bleached sycamore tree, half thrown across the river, but still holding to the bank by its sinewy roots, and at its extremity is an ants' nest, about the size of a beehive, and along the trunk and branches green leaves are seen to move about at a prodigious rate, under which ants are discovered on inspection.

Immediately under the ants' nest are some glorious water lilies, and close to this, by way of contrast, floats an alligator which has been dead some time, and has not kept well, and on the top of him sit two black cormorants which, having evidently over-eaten themselves, are shot on the spot and die lazily. So we ascend the river. Ahead, astern, on every side are canoes. Here, surmounting a pyramid of luggage, is a party of Western men in shirts of red and jackboots, questioning everybody with the peculiarity of their race.

At Gorgona a flaming advertisement had informed us that half way on the road to Panama the "Washington Hotel" would accommodate travelers with "forty beds." Anxious to secure a resting place for my own party, I left the luggage train under the charge of Barnes and pressed forward on the bridle road.

At nightfall I reached the "Washington Hotel," a hut perched on the top of a partially cleared hill. An immense amount of fluttering calico proclaimed that meals could be pro-

SAN PABLO. *From a sketch made in 1850 by Charles Nahl.*

cured, but a glance at the interior was sufficient to destroy all appetite. Around it there were mule drivers and passengers clustered, and clamorous as bees without a hive. To my surprise the crowd consisted, for the most part, of homeward-bound Californians, emigrants from the land of promise, who had, two days before, arrived at Panama in the steamer. Some were returning rich in gold dust and scales, but the greater part were far poorer than when first they started to realize their golden dreams; and these latter were as drunken and as reckless a set of villains as one could see anywhere. Stamped with vice and intemperance, without baggage or money, they were fit for robbery and murder to any extent; and many of them, I doubt not, were used to it, and had found it convenient to leave a country where Judge Lynch strings up such fellows quicker than they like sometimes. They foretold, with a savage joy, the miseries and disappointments that awaited all who landed there, forgetting that others traveled on the same road with them who had, in a very short space of time, secured to themselves a competency by the exercise of industry, patience and temperance. The Yankee owner of the "Washington" was "realizing some," judging from the prices he

charged and that every eatable had been consumed long before my arrival. The "forty beds" respecting which we had met so many advertisements on the road, consisted of frames of wood five feet long, over which we simply stretched pieces of large, soiled canvas. They were in three tiers, and together occupied about the same space as would two four-posters. They were all occupied.

Wet with the thunder storm, I took up my station on a dead tree near the door, and as night closed in and the moon rose, awaited the arrival of my man and dogs with impatience. Hours passed, and I felt convinced at last that fatigue had compelled Barnes to pass the night at a rancheria I had seen a few miles back. Rising to stretch my limbs, I became instantly aware of a succession of sharp stings in every part of my body. These became aggravated as I stamped and shook myself. In sitting on the dead tree I had invaded the territory of a nest of ants of enormous size, larger than earrings. They bit hard and had sufficiently punished my intrusion before I managed to get rid of them. During the night file upon file of mules arrived from Panama. These were unloaded and turned adrift to seek their supper where they could. Travelers, muleteers and luggage were spread in every direction around a large fire that had been lit in the early part of the evening. Deserting my

CHAGRES RIVER. *From a sketch made in 1850 by Charles Nahl.*

inhospitable tree, I found myself comfortable enough among a heap of pack-saddles, buried in which I slept until morning. With the first streak of day everything was moving; luggage was replaced on kicking mules; the sallow, wayworn, unwashed tenants of the "Washington," with what baggage they had on their backs, started for Gorgona on foot. The morning oath came out fresh and racy from the lips of these disappointed gentlemen, nor could the bright and glorious sun reflect any beauty from their sunken and bloodshot eyes. When they disappeared in the winding road leading to Gorgona, it was quite a comfort to me to reflect that we were now about to honor the same country with our presence. In less than an hour I found myself alone at the half-way house; the crowd had dispersed on either road, but as yet my baggage had not arrived. When it did come up at last we were all very hungry, but as there was nothing eatable left at the "Washington," we started for Panama without breaking our fast.

"The Road to Panama" will be the title of the next article of the Pioneer series, illustrated with more sketches by Charles Nahl.

FIRST SALON AN ASSURED SUCCESS.

EXTREME HIGH ORDER OF WORK SUBMITTED CAUSES CONGRATULATION—NAMES OF THE MEN WHO COMPOSE THE JURY OF AWARD.

The first San Francisco photographic salon is an assured success. The number of pictures submitted and the exceedingly high order of the work ensures an exhibition destined to attract the attention of art lovers and photographic critics the world over.

The Committee on Selection and Hanging has made its first round, and the hardest portion of the work has been accomplished. The jury in its selections displayed great liberality, and but few exhibits were rejected as a whole. In some instances every picture in an exhibit was accepted. The committee expresses surprise and satisfaction at the quality of the work submitted. More especially is it gratified at the local support given the salon. Scarce a photographer of note in California neglected to send specimens of his work. Exhibits have been received and accepted from many of the Northern and Eastern States, and all doubts as to the general character of the exhibition have been removed, and when the salon opens its doors a display of great interest to every student of photography is assured.

Arrangements have been completed for an opening reception to the members of the Art Association and the California Camera Club on the night of January 17th. The exhibition will then be thrown open to the public for two weeks.

JURY OF AWARD.

Mr. Fletcher, the Curator of the Mark Hopkins Institute, has announced that, in accordance with the request of the Executive Committee, the President of the San Francisco Art Association has appointed the following gentlemen to serve as a jury to award the certificates of merit and CAMERA CRAFT medals to be bestowed upon exhibits of each class:

W. H. LOWDEN,
L. P. LATIMER,
C. CHAPEL JUDSON.

Mr. Lowden is a prominent business man of San Francisco, who has devoted his leisure hours for many years to photography. While not a member of the Camera Club he is probably one of the best known amateur photographers in California. He was one of the first to see the artistic possibilities of the craft, and his work has been exceptionally successful. He even gained recognition in the scientific world for the beauty and accuracy of the photographs made by him of the eclipse of the sun some eight years ago, the prints of which were widely copied. Mr. Lowden's acceptance of service on this jury has given universal satisfaction.

Mr. Latimer is a well-known artist of San Francisco, where he has had his studio for many years, and is a frequent contributor to the exhibitions of the

Mark Hopkins Institute of Art, the Bohemian Club and elsewhere. He is a member of the Board of Directors of the San Francisco Art Association and a member of the Bohemian Club.

Mr. Judson is another of our well-known artists. He studied in the Mark Hopkins Institute School of Design, and afterwards in Paris. He has a studio in this city, and is also instructor of the night class in the School of Design. He is a member of the Art Association and of the Bohemian Club.

The jury in its entirety is exceptionally well qualified for the work it is called upon to perform. All of the members are broad-minded, liberal men, thoroughly in touch with the spirit of the exhibition and thoroughly capable of discharging the duties of their office.

JURY OF ACCEPTANCE.

The President of the Art Association has also appointed two members of the Jury of Selection and Hanging to act in conjunction with the four appointed by the Camera Club, and one at large. These gentlemen are Mr. Theodore Wores and Mr. Charles J. Dickman.

Mr. Wores is a native of San Francisco, and studied art in the Mark Hopkins Institute School of Design. He afterwards spent six years studying in Munich and a year in Italy. He has exhibited pictures at all of the principal exhibitions both at home and abroad. He, at one time, successfully conducted the Art Students' League in San Francisco, and is at present a member of the Art Association and the Bohemian Club.

Mr. Dickman studied art in the School of Design, and afterwards spent two years in the Julien Academy in Paris, and at the Academie Colorossi, where he received a medal for drawing. He had a picture in the Paris salon, and has exhibited at the Mark Hopkins Institute and elsewhere. He is a member of the School Committee of the School of Design, of the Art Association and the Bohemian Club.

The Executive Committee congratulates itself on the personnel of this Jury of Acceptance, and believes that the result of its labors will be most excellent, not only for those interested directly in the photographic art, but for the public which enjoys seeing meritorious pictures.

The admission to the Mark Hopkins Institute, with its admirable collection of works of art, is fixed at twenty-five cents, and no additional charge will be made for this special exhibition. Illustrated catalogues, which will not only give visitors all the necessary information but will serve as handsome souvenirs of the occasion, will be on sale in the gallery.

At a joint meeting of the Salon Committee, on January 8th, it was decided to accept the proposal of CAMERA CRAFT to offer a solid gold medal for a "Grand Prize Picture" in the salon. This prize is in addition to the fourteen medals already offered by CAMERA CRAFT, and is but another method of stimulating the interest of photographers in the outcome of the jury's work.

It was also decided to make the second and third Thursdays of the salon Camera Club days. Large crowds will, undoubtedly, attend on these days.

During the evenings a promenade concert will be given.

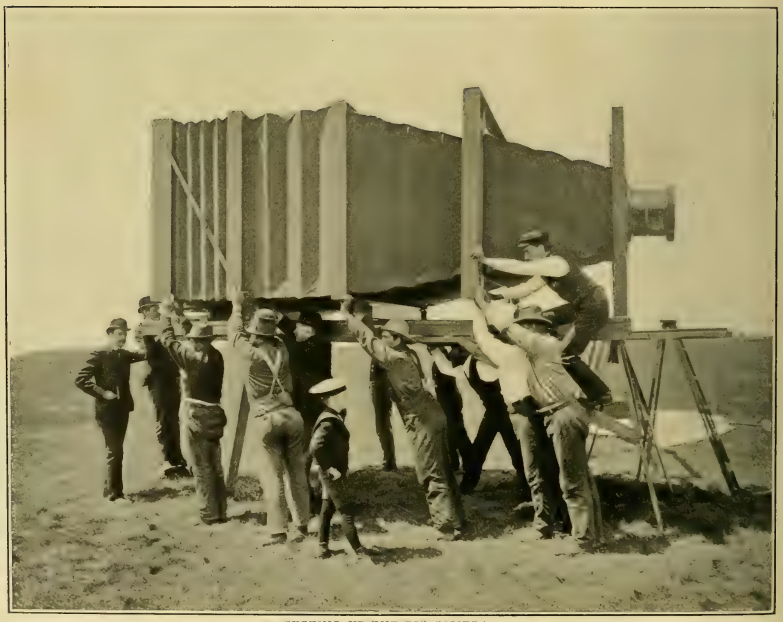
The exhibition will be open to the public on all days, including Sundays, from January 18th to 31st.

SUCCESSFUL ADVERTISING.

Few photographers realize the vast benefits to be gained from intelligent and judicious advertising, but one George R. Lawrence, a photographer in Chicago, deserves to be classed at the head of the profession in so far as obtaining publicity goes. For a nominal investment of four thousand dollars this photographer has gained advertising aggregating in value at least twenty times the amount of his investment.

For the purpose of producing a record-breaking picture for the Paris Exposition, the photographer constructed what he claims to be the largest camera in the world. In a recent letter to CAMERA CRAFT, Mr. Lawrence furnished the details of the construction of the camera, and also sent a photograph of the instrument, which is herewith reproduced. The lens was made by the Bausch & Lomb Optical Company and the plates by the Seed Company of St. Louis. The first picture taken was that of an "Alton" train, and was a great success. Mr. Lawrence invented, recently, a new system of flash-light photography, and says of the process that "We can light up a street half a mile long on the darkest night and guarantee a satisfactory picture of its full extent, providing some one would be fool enough to pay for it."

This photographer has just completed a balloon, one hundred and twenty feet high and sixty feet in diameter, for the purpose of taking birdseye views of plants and cities.



SETTING UP THE BIG CAMERA.

NEGATIVE BY A. L. JACKSON

MOTHERHOOD.

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OUR MONTHLY PORTRAIT.
STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

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The absence of the editor and a desire to publish the names of the salon juries were responsible for the delay in issuing this number of the magazine. The February number, containing a full report of the salon, will be issued promptly on the first of the month.

THE PRESENT CENTURY

A century ago photography was an unknown art. What will it be a century from now? The progress of the art will undoubtedly keep pace with the progress of the world, and things yet undreamed of will be taken as a matter of course ten years from now. The airship, wireless telegraphy and submarine navigation are accomplished facts today. Color photography is a thing of tomorrow.

No science, no art, no civilization is complete without the aid of the camera. The effects of photography during the latter part of the last century will be excelled in the first part of the present. Even as the camera assisted in precipitating the wars of the last century, so will it assist in hastening universal peace in the future.

The power of the press will be the power of the camera. With its aid science will advance as never before, political conditions will be influenced by its use and art will acknowledge no better friend.

CONGRATULATIONS

CAMERA CRAFT congratulates the members of the San Francisco Art Association, the California Camera Club and itself upon the success now certain to crown the efforts of the officials of the First San Francisco Photographic Salon. Having accomplished the feat of gathering from all parts of the world a collection of pictures equal to any ever gathered before in three short months, nothing now

remains to do but to swell the attendance at the Mark Hopkins Institute, and attract as much attention to the exhibition as possible. Nothing like it has ever been seen in the West, and the interest already manifested in art circles insures a steady attendance from art lovers.

THE CAMERA CRAFT MEDALS

In addition to the fourteen medals already offered by CAMERA CRAFT in the salon competitions as first and second awards, another medal of solid gold has been made to follow an original idea. This course was taken because of the great success of the exhibition and to arouse a further interest in the awards of the final jury.

This medal will be offered for the "Grand Prize Picture" of the salon, irrespective of class or subject. The Jury of Award will select the picture as being the best example of progressive photography and possessing the greatest interest to the world of art. In this manner the decision of the artists will be combined in one picture.

The "Grand Prize Picture" will be purchased by the Mark Hopkins Institute, and will be hung on the walls of the institution as a nucleus for a photographic collection.

A PLEASANT OCCASION

It is seldom that the head of a great manufacturing concern so far considers his employes as to tender them a banquet at the close of the year, and when such an instance occurs CAMERA CRAFT feels that it is a duty to call attention to the occasion. On the night of December 9th Mr. Harvey B. Carlton, General Manager of the Rochester Optical and Camera Company, gave a banquet to the office employes and the heads of departments of his company. The menu was elaborate and the toasts in keeping with the spirit of the occasion. In addition to the banquet all employes of the company not in attendance were presented with a fine turkey.

If other firms would follow the lead of Mr. Carlton the relations between employer and employe would be more and more closely drawn and the interests of both would be advanced.

THE BUSINESS OUTLOOK

The year 1901 will be one of prosperity to California, and especially to the photographic trade. Beginning in April the transportation of troops from the Philippines will commence, and thousands of soldiers, with money to spend, will pass to and from the islands.

Early in the year President McKinley, with a host of notables from the "Buckeye State," the Secretary of the Navy, and regiments of militia, will visit California to see the battleship "Ohio" launched.

These events, in connection with others to follow, will swell the ranks of the amateur photographers and wonderfully increase the use of material.

If you are not a subscriber to CAMERA CRAFT you should order your copy of the February magazine at once. The demand for this number will be great, as it will contain a full report of the salon and its results.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

AMERICAN JOURNALS.

The Photo Miniature for December is devoted to "Trimming, Mounting and Framing." Mr. J. H. MacFarland has produced an excellent essay on the subject that cannot fail to stimulate the reader to aim at better work than usually characterizes amateur efforts. The essay is too short to be a practical guide, and in this respect suffers when placed in comparison with the book on the same subject in the *Amateur Photographer* (English) series. On the other hand, the making of cloth frames, an idea the author claims as his own, is described in full, and is a good set-off.

Western Camera Notes—Those interested in flashlight photography will do well to read the December number, which contains three interesting articles on this subject. Mr. F. C. Bangs writes thereon at large. Mr. J. E. Taggart describes a most useful apparatus to fire instantaneous flashes, and there is a further description of the "Chelsea Pistol," an apparatus intended for a like purpose.

The Photo Era opens with a review of the Philadelphia Salon, by Mr. Osborne I. Yellott, that no one interested in the future of art photography in America should fail to read. Non-partisan and calmly critical in tone, it ends with an arraignment of the method of selection practiced at these exhibitions that is unanswerable. Elizabeth E. Richardson writes a useful article on "Landscape Composition." F. R. Fraprie gives a very interesting account of the wonderful elements, Polonium and Radium. Those interested in the photography of moving bodies will find interest in the article of Julian Burroughs on "Photography and Football."

The Photo Beacon—The serial article of Mr. J. A. Hodges is this month devoted to aerial perspective, and is not less valuable and suggestive than its predecessors. The editor describes the manufacture of a dry plate—that is to say, in a general way—as it is carried on in the Seed Plate Company. Dr. Dellepsen describes "An Attic Studio." G. H. Otis advocates the use of a formaline bath (one to four of water) to prevent the sticking of squeegeed prints to the ferrotype plate; the prints to be immersed for fifteen minutes after thorough washing. From personal experience the writer knows that this is good advice. L. M. Tillinghast writes on the vexed and vexing question of indexing negatives and describes a most useful method.

The Photographic Times — E. Lingan Bowlus writes an interesting summary of photographic achievements under the title of "A Century of Applied Photography." The title hardly seems justified, seeing, as the writer states, that it was not till 1840 that Dr. Draper took the first picture in a camera. Applied photography is, in truth, not more than half a century old. Dr. R. W. Schufeldt gives a short account of some of his photographic work during the past year. Referring to studies of the nude, he emphasizes the desirability of such work being done in the open air. It is very interesting, in connection with this, to examine Count von Gloeden's beautiful picture, entitled "Ancient Rome," reproduced in this number. It is a study of three nude figures, such as we too rarely see executed in photography.

The Professional and Amateur Photographer has a number of short articles on useful subjects. Among the best is a description of printing on silk.

Camera and Darkroom—The best article in this issue is by L. A. Osborne, on "The Magic Lantern, How to Make and Use It."

Anthony's Bulletin—T. W. Edmondson writes a concise description of the Ozotype process, with illustrations. This otherwise good paper contains a quite extraordinary statement. In speaking of the advantages of the process over carbon the author says: "The unpleasant operation of sensitizing the tissue with *hot* potassium bichromate is entirely done away with." It would be interesting to see the tissue sensitized with *hot* potassium bichromate. A useful paper to the amateur is the essay on "Figure Studies," by T. Lee Symes, and equally valuable in another direction is "The Evolution of a Picture," by Professor C. H. Cox. A careful investigation of the comparative intensifying

powers of various intensifiers, by Dr. Eder, results in placing the Agfa Intensifier in the first position. This issue also contains the first part of a reprint of the lecture of T. R. Dallmayer, on "The Evolution of the Modern Lens."

The Saturday Evening Post of December 25th contains a well-illustrated article by R. W. Schufeldt, on "Photographing Nests and Nestlings." Mr. Schufeldt has long been known as an indefatigable worker in zoological photography, and it is encouraging to see the Eastern magazines seek the aid of such writers instead of the average collection of freak pictures and other rubbish.

FOREIGN JOURNALS.

The Bulletin of the French Photographic Society contains an account of a printing method that may be of interest. In brief, it is as as follows: Dissolve fifteen grains of potassium bichromate and seven grains of sulphate of copper in 125 c. c. of water, and with this coat thick paper with a water-color brush, in the same manner as a worker in water colors applies a sky wash, on a sloping board. Sponge up the excess of fluid, dry as rapidly as possible in the dark, and print until all the details are well out; wash about an hour, develop in a strong solution of pyrogallic acid; wash ten minutes and dry. The image is said to be vigorous and artistic in color.

Camera Obscura — This journal, written in sections in four languages, English, French, German and Dutch, is, perhaps, the very best monthly published. In the English section we have an article by Chapman Jones on the question of straight and modified or so-called faked photographs. Major-General G. A. Waterhouse writes a lengthy article on the method of making field maps for subsequent reproduction in photography. The same writer has also an account of experiments with photocollotype. M. Henri Ferrars has an article on Orthochromatic plates, from which may be deduced the conclusion that in snow photography the Orthochromatic plate is the important factor, the color screen without it being of little use.

English Amateur Photographer — Those engaged in copying should see Captain J. S. Henderson's article, fully illustrated, on the making of a stand for this purpose. A useful and simple folding stand for vertical work and working at various heights is described by H. D. Gower.

Photographische Rundschau — The November number contains a comparison of the respective merits of the Secco and the Cardinal films, with a decision in favor of the latter; but the author, Dr. Holm, in concluding his remarks, says: "I must acknowledge that, taking all points into consideration that are likely to arise in the manipulation of an exposure, we have as yet no material which, in certainty, equals the dry plate, much less excels it."

Il Progresso Fotografico (Italian) — M. Namias recently published in this journal an account of what is called Sepia paper, with full and clear directions for its preparation and use.

Gaedecke's Wochenblatt — The chief article of the month is a careful description of the process of toning with palladium chloride, which yields results equaling platinum in permanency.

NOTES.

Mr. Herman Adams, of the Stuparich Company, left recently for an extended business trip in Mexico and South America.

Edward R. Jackson, of Oakland, whose work is familiar to all CAMERA CRAFT subscribers, won the first prize in the Doubleday-McClure – *Photographic Times* competition for the best set of illustrations for any one of three popular books. Mr. Jackson chose "The Gentleman from Indiana," and the January number of the *Times* reproduces a number of the pictures. The first prize consisted of one hundred dollars and a gold medal. The second prize also landed in the West, being given to Mrs. Claude Gatch, of Salem, Or.

What was the matter with Eastern workers?

Folmer, Schwing & Co., manufacturers of the Graphic cameras, have in preparation a decided novelty in cameras. It is a twin-lens camera, with a magazine of twelve plates. The great novelty lies in the fact that, by an arrangement of prisms, the camera is pointed at right angles to the subject to be snapped. This will certainly be the thing for use in Chinatown.

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

AMMONIUM PERSULPHATE

A little ammonium persulphate added to the developer will often clear the objectionable fog sometimes found in Velox and Bromide papers. It should be used in conjunction with bromide of ammonium, as follows:

Ammonium persulphate	50 grains
Ammonium bromide	10 "
Water	2 ounces

When a few drops of this restrainer is added to the developer it immediately becomes less rapid and more contrasty, and what veil or fog may exist in the paper at once disappears, the persulphate cutting away the fog during the process of development.

LONG AND SHORT FOCUS

Perspective is the convergence of parallel lines when viewed at an angle. When two views are taken of the same object from the same point, one with a short focus lens and the other with a long focus, the angular perspective is the same, the only difference being the difference in scale. This can easily be demonstrated by enlarging the section of the wide-angle view, which corresponds to that embraced by the narrow-angle lens. If the two views are made the same size the perspective will be the same in every respect. But if this enlarged scale is produced in taking the negative by selecting a closer point of view the perspective is at once altered, and the parallel lines now appear to converge at a much greater angle. To secure correct perspective and a natural effect and gradation in size through the different planes in the picture a lens should be used the back focus of which is equal to the length of the diagonal of the plate employed.

The modern high-grade lens when used on the size of plate quoted, owing to its short focus becomes a wide angle, and while this may be an advantage in many cases of instantaneous photography, where the subjects are wanted near the camera, it is a decided objection when portraiture or landscape, pure and simple, is attempted.

For this reason a high-grade lens should be selected, a size larger than listed for the plate used, thus increasing the back focus and reducing the field, securing in this way the effect of the single long-focus lens, with the advantage of great definition and rapidity.

ORTOL

To those who still think that pyro is the only "developer," and all others merely make-shifts, allow me to suggest an earnest investigation of ortol. If the pyro fiend can get pyro quality without pyro trouble by using ortol or ortol-metol, why not give it a trial. Ortol gives a brownish black-looking negative, is readily soluble in cold water, and behaves much like pyro-soda without the objectionable stain to plates or fingers. It is very sensitive to the restrainer, and with a well-timed exposure grows in intensity more rapidly than with pyro, but not quite as quickly as with metol. It is the most useful developer we have, as it can be used for Bromide or Velox papers, plates and lantern slides with equally satisfactory results. In my own experience I secure the best effect by combining ortol with metol, according to Wenzel's formula:

SINGLE SOLUTION ORTOL-METOL DEVELOPER

Water	10 ounces
Metol	12 grains
Potassium metabisulphite	6 "
Ortol	18 "
Sulphite of soda crystals	½ ounce
Carbonate of potash	80 grains
Potassium bromide	5 to 10 "
Hyposulphite of soda	1 "

For use, dilute with equal bulk of water. More bromide and a stronger developer should be used to obtain the best results with Velox papers.

TWO-SOLUTION ORTOL-METOL DEVELOPER.

[A]

Metol	120 grains
Metabisulphite of potassium	60 "
Ortol	180 "
Bromide of potassium	50 to 100 "
Hyposulphite of soda	10 "
Water	47 ounces

[B]

Sodium sulphite, crystals	4½ grains
Carbonate of potash	1½ ounces
Water	47 "

For use, take:

A	7 ounces
B	8 "

In using ortol or ortol-metol the development should be carried a little further than with pyro, as the ortol-developed plate loses somewhat in the fixing bath.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY O. V. LANGE.

PROCESS FOR PRINTING ON CARDBOARD

There are several advantages to be obtained when printing on bristol board and crayon paper not possible through other processes. One is the great permanency of the image, because of the fact that we have not the unstable substances, such as albumen and gelatine, for a substratum. When using the bristol board the surface will be found so hard that the chemicals do not sink in but stay on the surface of the board, giving vigorous prints, while its peculiar texture has a handsome mat-finish, now acknowledged the correct thing in the modern photograph.

Most of the published formulæ for silver printing on mat-surface paper are cumbersome and tedious to manipulate, but I maintain that my method is short, simple and practical, and I will attempt to explain it as concisely as possible.

The practical and successful working must necessarily depend upon individual practice. The best board is four-ply wedding bristol, and either a white or cream tint may be used. The board is chlorized by immersing for a few seconds in a solution of ammonium chloride, six grains to the ounce of water. Fifty ounces of solution is plenty. It is then hung up on clips and left to surface dry, after which it must be made bone dry over a gas or oil flame, and then left to cool for about five minutes before silvering. This chlorized paper will keep indefinitely, therefore quite a quantity may be prepared in advance and thoroughly dried just before sensitizing.

This sensitizing solution is made by dissolving one ounce of silver nitrate in seven ounces of distilled water. Three-quarters of an ounce of stronger water ammonia is measured in a graduate, and from ten to fifteen drops added to the clear, silver solution at a time, shaking well between each addition. After the first few drops it will turn to a dark chocolate color. After all of the ammonia has been added it should clear up again; if it does not, it is a sign that the ammonia is not strong enough. Continue adding little by little until it just clears, then shake the bottle containing the mixture for a minute or two longer, after which pour in a quarter of an ounce of the original silver nitrate solution, which is kept in another graduate, and it will again become turbid. This solution must be filtered, and the clear solution is ammonia nitrate of silver.

This solution is swabbed on the dried bristol or crayon board by means of a piece of heavy, unbleached canton flannel, about twelve inches long and four inches wide, wound around a piece of thick glass, four inches long by three wide. The loose end is fastened by two pins. This four-inch swab is dipped slightly in the solution, some of which should be poured in a shallow rubber tray for that purpose. It must then be passed over with a steady pressure several times, back and forth, until the board is evenly moistened. The surface coated should be a little wider and longer than the negative from which the print is to be made, as it must be matted so as to cut off all the uneven edge of the silvering.

It is now well dried once more and is ready for the frame. The board thus prepared does not keep more than seven or eight hours, as the edges will discolor. However, this disappears in the subsequent operations if the paper is not kept over until the next day.

Print not quite as dark as for Solio, and tone in a rather weak gold bath made by dissolving the contents of a fifteen-grain bottle of chloride of gold in eight ounces of water. Take one ounce of this to forty-eight ounces of water in which an eighth of an ounce of dry bicarbonate of soda has been dissolved. Prints should be left in this bath from ten to fifteen minutes, or until a pleasing purple-black tone is reached. In cold or damp weather prints will tone slower than on a warm day. Ten minutes is the average time for toning. Wash twice after toning, then immerse in the following fixing bath: water, thirty-two ounces; sodium hyposulphite, four ounces, for twenty minutes; wash in eight changes of water, at least, and let soak, with an occasional change, for two or three hours.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY FAYETTE J. CLUTE.

WHAT THIS DEPARTMENT IS NOT

It is not introduced as an easy way of filling space by indiscriminately copying a few more or less reliable bits of information from other sources. It is not a series of articles beginning with a history of photography and ending, months later, with some hazy generalizations on art and art principles. Neither will it be a correspondents' column on the usual lines, wherein a few dollars' worth of space is used in telling you that: "As you have failed to observe the rules at the head of this column," etc., etc., your query can not be answered. "If you will send stamped addressed envelope we will reply privately," or that "your plate is no doubt badly overexposed."

WHAT THIS DEPARTMENT IS

It is for the amateur, the beginner, the individual, the isolated worker. The space belongs to you. The amateur editor's time is your own. The publishers' desire is that it be made just as helpful, with your co-operation, as it is possible to make it. Let us help you if you are having trouble with any of your photographic processes. We have opportunities for obtaining information not at your disposal. If you have any new ideas or meet with any helps or hints that seem of value this department enables you to make them known to your fellow workers. If you want helps or hints on any particular line of work this department is for the purpose of supplying you with them.

WHAT WE WANT YOU TO DO

Write us — write us personally. There are no rules or restrictions. If you do not wish to advertise the fact that you are not a past master, do not let that deter you; we will use neither names, initials nor addresses in answering inquiries for information in this department.

If you are not on the subscription list you are at least a reader, no doubt an appreciative one, and you will get the same attention. If you desire an answer by mail, and wish to send a stamp, do so. If not, valuable space will not be wasted in telling you of the omission. Stamps are cheaper. If you hear of a help or hint that seems of value, do not neglect to make it known because it may not be new to others. Send it along and let us decide as to its value. Send us your pictures; we are going to reproduce some of them, and we like to see them, anyway.

Lastly, find fault if this department does not suit you. It is one way of saying what does suit you and we will be pleased to that extent.

WHAT WE ARE GOING TO DO

The amateur editor has had experience in handling a department of this nature and in attending to the extensive correspondence that it involved. He is going to make use of that experience. He likes the work and expects to gratify his taste in that direction. He has been experimenting for years, and will continue to do so. He has learned a good many things, and is willing to add to his stock. Further than this he does not wish to go, preferring to let later issues show just what has been done with the department.

TO RESTORE A FADED SILVER PRINT

An amateur wishes to restore, if possible, several prints which have become faded and discolored by age, in order that he may copy them. A trial of the following method is advised: Remove the print from the mount by immersion in hot water. Next bleach in the following solution:

Potassium bichromate	30 grains
Sodium chloride (table salt)	45 "
Hydrochloric acid	60 minims
Water	10 ounces

Allow the image to almost disappear in this bath. Wash very thoroughly and then submit the print to a hydroquinone, metol or amidol developer, well restrained with bromide, and containing plenty of sulphite; in fact, a good lantern-slide developer. After thorough washing it may be further altered in color by toning in a gold-toning bath.

THE USE OF ORTHO PLATES

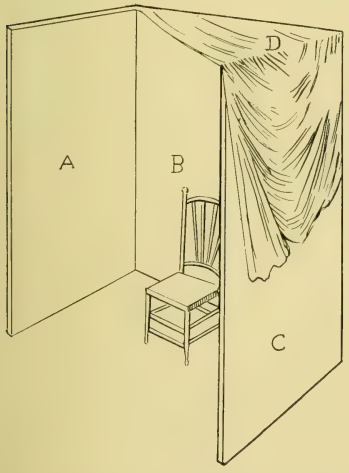
A reader in a recent letter says: "A friend, an old professional, says that he can do better landscape work with a plain plate than with the orthochromatic."

Perhaps he can. The reason is, no doubt, the same as that given by a professional friend, who was frank enough to say: "Old photographers have by long experience reached that stage where they see a view, not as it looks, but as it will translate into the values given by an ordinary plate. They depend on these false values for their light and shade in the composition of their pictures and Ortho plates, particularly when used with a color screen, change these values to such an extent that their results are not what they expect."

Outdoor Portraiture

In answer to an inquiry as to the methods employed in securing such good results in outdoor portraiture, a well-known amateur writes me very fully, and sends a rough sketch to assist the explanation.

The cut explains itself. A is covered with ordinary white sheeting; B with brown felt, which acts as the background; C with oilcloth, face side out, and D is a dark blanket thrown across the top. By opening or closing more or less one or both of the two side wings, which are hinged, and by uncovering



more or less of the top, good control of the light is easily obtained. The white or underside of the oilcloth on C acts as a reflector on the shadow side of the face. Pinning a dark cloth over the lower portion of A will sometimes help in securing more of a top light effect. The whole thing folds into small space, and if his results are any criterion, it is just what the ordinary amateur requires to improve his outdoor portraiture.

Keeping a Scrapbook

Did you ever realize what a time and temper saver a scrapbook is? I do not mean an orderly one, with the clippings neatly pasted down, but one that is a scrapbook in the full sense of the word. You use dozens of your favorite plate. The formula sheets are always in the rubbish bin; but just when you want one it is not to be found. You copied a formula from a friend's notebook months ago — copied it on the first thing that came handy, the back of an envelope, perhaps; but now that it is wanted it cannot be found. You look through your pockets, your desk, your waste paper, but it is gone. You remember reading an article in a book or magazine. You made a mental note of certain parts, but now find that your memory fails you or your mental notes are incomplete. You cannot remember where the book was obtained, and you waste time looking through your own. You get a trial package of a new paper. Is not the formula the same as that you used a few years ago for another brand of paper? If it is, you would like to try the same modifications you then found advisable, but you cannot find a copy of the old formula. Keep all memorandums on the original scraps of paper on which they were made. Their form will often suggest the circumstances under which they were obtained. If copied neatly into a blank book they lose their individuality. Addresses, letters from dealers concerning their goods, pictures that you have clipped from newspapers because they suggested other pictures to you, names of books containing some bit of information you feel will be wanted some day — in fact, odds and ends photographic. Keep all such things in an old book, tack them in with a drop of paste at two corners. As time goes on, a book that will be of inestimable value will be your reward.

How to Darken a Window

Another reader wishes to know the best method of darkening the window of an ordinary room in such a manner as to make the opaque screen easily removable. I did it once by following the instructions given in a certain "Amateur's Guide," and had a light framework covered with black and yellow paper. It was too large to conceal anywhere in the room and almost too

large to get out of the door. A better plan was mentioned in one of the British magazines some time ago.

Take pieces of both black and red cloth a little larger than the window; sew them together around the edge, inserting, at the same time, a piece of elastic. This will slip over the frame of the window and remain tightly in position if made the right size. Where the window frame does not extend into the room, a neat strip of moulding may be tacked all around the window and used instead. This can be painted to correspond with the frame, and will not spoil the appearance of the window. The addition of a few small hooks to engage eyes sewed into the cloth will be an additional precaution in case of large windows.

REMOVING FILM FROM NEGATIVES

One ounce of sulphuric acid and one ounce of bichromate of potash in twenty ounces of water will remove the hardest film in a few hours. A rinse under the tap will leave the glass clean and sparkling. Pour the acid into the water, not *vice versa*, or it will break your graduate by the heat given off. Mix a new solution occasionally, as it smells to high heaven after a number of plates have been cleaned. The negatives must, of course, be so placed in the solution as to allow it to act, which it cannot do if they are piled one on top of the other.

CURE FOR A STREAK OF BAD LUCK

Meeting a friend the other day, one with whom I have taken several pleasant holiday rambles, I asked him, "How are things photographic?" He replied: "Haven't done anything lately. Everything gone wrong. Kind of lost interest."

Did you ever have that experience? I have. I do now, but do not lose interest. Here is my cure:

Buy a dozen slow plates; load up one holder; take it and your camera to some not too unfamiliar spot and put in a whole day exposing the two plates. Pick out your subject carefully. Study it from different positions. Watch for the most advantageous lighting. Expose carefully, and then go home and develop two negatives that will be worth two dozen of the kind you have been making. Think how many chances of failure you have avoided by going slow and you will wonder that you have had any streaks of good luck instead of the other kind. Your confidence and interest will have returned, and you can go back to your fast plates and six holders again with a valuable lesson learned.

PHOTOGRAPHING THROUGH FOG

The lay press, which has been so fond of exploiting the discovery of color photography in the past, has discovered another wonderful advance in photography. An "electro-chemist of Chicago," name not given, has learned that a friend in Zurich has obtained the information that expert photographers on the Kaiser's imperial yacht have been highly successful in experiments, conducted with a great deal of secrecy, in which a mountain one mile distant was clearly photographed through a fog which rendered a building one hundred feet away invisible. The central lens is surrounded by six others. These auxiliary lenses have prisms directly behind them, which pre-impose their images, in perfect register, upon that of the central lens. By these seven lenses and use of color screens, the "colors of the spectroscope are so blended, neutralized and centered as to make an impression through dense fog that is more clear-cut than a sunlight exposure made through an achromatic lens." Interesting reading, isn't it?

AMATEUR PHOTOGRAPHIC CONTESTS

It is sometimes hard to determine whether these competitions are legitimate contests or simply a scheme of some newspaper or magazine publisher to obtain a large assortment of prints at a small outlay. At the hands of some of the better-known publications and in exhibitions given by organized camera clubs and the like, the amateur is assured of fair treatment, and he should not fail to take advantage of the opportunity to measure his work with that of his fellow workers, but care should be used to avoid lending aid to any scheme.

The annual contest under the management of Steelton (Penn.) Camp, 5689, Modern Woodmen of America, is one concerning which no hesitation need be felt. January 24th, 25th and 26th are the dates. The prizes are tempting and numerous, and E. F. Flickinger, Camp 5689, Steelton, Penn., should be addressed.

Mr. George Eastman, of the Eastman Kodak Company, will in all probability spend several weeks in California during the next month or so.

CURRENT AFFAIRS IN CHICAGO.

CONDUCTED BY E. W. THOMAS
CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS.

RECENT EXHIBITIONS.

The recent "Members' Exhibit of Photographs," held in the club rooms at the Art Institute, proved a success in number of pictures and quality of work submitted. This has been a year of events for the society and one of education to most of the workers. The recent salon held under the auspices of the club and the Art Institute has shown in this exhibit a marked influence and improvement in the quality of the members' work.

Close on the footsteps of this exhibit followed that of the Loan Exhibit of Miss Mathilde Weil and C. Yarnell Abbott of Philadelphia.

The accompanying criticism is by one of our most earnest students:

"THE LAST EXHIBITION.

BY ROBERT CRAIK MCLEAN.

"The monthly exhibit of the Chicago Society of Amateur Photographers for December contained eighty-nine prints by C. Yarnell Abbott and sixty-two by Miss Mathilde Weil. In the one hundred and fifty exhibited there are but two landscapes and less than a dozen that could be classed as genre portraits. Portrait and character studies predominate. Of the Eastern exhibit it might be said that, while showing an advanced position in the art of picture-making, but nineteen are marked by the writer as containing those elements of composition, tone and human interest which are the proper attributes of a camera picture. Of these, twelve are the work of Mr. Abbott and seven that of Miss Weil. Those by Mr. Abbott are, "I Wish I Were in Dixie," "Egypt," "Lantern Glow," "The Teacup," "The Alphabet," (print from original negative), "Decorative Panel," "Ishtor," "The Rift in the Clouds," "Beatrix," (straight print from negative), "The Vase," "Study," "Dies Irae." Of Miss Weil, "Junior," "A Maid of Olden Times," "Across the Fields," "Helen," "The Return of the Fleet," "The Songs of the Meadow Lark" and "Lady with Muff" seem to charm and remain pictures in the mind after the entire collection has been scanned. Miss Weil, in her two genre pictures, "The Return of the Fleet" and one other that I cannot name without referring again to the walls, shows that she is at her best when composing out-of-door subjects. Mr. Abbott's best picture, which I think he calls "The Dryads," seems to be absent. To my mind it was the most poetic of the entire Chicago salon. But he is always æsthetic in his conceptions and skillful in his rendition. It is pleasant to see so many good pictures from the original negatives, for those that are produced by the gum-bichromate or local development, where the process is pronounced, are uniformly badly executed and bad art. I do not say this to discourage those that find a charm in these pictorial processes, but to intimate that until the art — and it is in all its essentials the art of the painter — has been mastered the student should not exhibit his work. It is like the nude in photography. Most beautiful of all if successfully executed, but the opposite when beyond the ability of the artist. I do not go into a critique of the several pictures mentioned, and do not intend to intimate that there are none others in the exhibition worthy of mention, but in these will be found, in some degree, that form, color and modeling, that we call tone, composition and human interest, that is found in all great pictures, and without which they only serve to mark an incident in the experience of the maker and a corrective to those who would become adepts in pictorial photography."

The next loan exhibit will be by Herbert Arthur Hess and Mr. E. B. Stirling, two well-known contributors to the salons and exhibitions. These loan exhibits form an unusually attractive feature of the club work and are growing in favor. They give all the opportunity of studying and comparing the works of the best producers of pictures and are an educational feature thoroughly appreciated.

[The circulation of CAMERA CRAFT has increased to such an extent in Chicago that the services of a regular correspondent are necessary, and Mr. E. W. Thomas, Chairman of the Print Committee, Society of Amateur Photographers, has been appointed to this position. All communications having relaiton to photographic news or happenings in Chicago should be sent direct to him.— EDITOR.]

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

"One of the most pleasant occasions of the year," was the verdict of the Xmas Hy-Jon-E-kin of the club, given on December 20th. A Christmas tree, filled with many useful and novel presents, was a feature relished by all those who were not the happy recipients of the various parcels. St. Nicholas played some curious pranks, and the presents were not all of the first water. Some of the sage members of the club found themselves in possession of hobby-horses, tin horns and toy swords.

However, Santa Claus redeemed himself by presenting a handsome cut-glass cigar holder to President Erwin in the name of the club.

An auction sale of donated presents, for the benefit of the salon fund, netted handsomely.

LOS ANGELES CLUB.

On December 20th the Los Angeles Camera Club celebrated its first birthday with a party at the Orpheum, which was a most successful affair in every way. The members had worked hard, and the number of tickets sold was a surprise to the Orpheum management as well as the members themselves. When the curtain rose every seat was taken, and some of the guests were obliged to be satisfied with seats on the stage. The boxes and loges were prettily decorated with the club colors, smilax and flowers, which were also carried over on to the stage. At the conclusion of the program proper, a very interesting lantern-slide exhibit was made of slides which were the work of the club members, the pictures receiving hearty applause. Some one hundred and fifty dollars was cleared by the club, and has been put to good use in furnishing the portrait room, which was left to the last in equipping the new quarters.

The series of lectures prepared by the Program Committee is being carried out in an entertaining manner. On December 14th Mr. J. Bond Francisco read a paper on "Composition" to a large assemblage, which proved to be all that was expected of this noted artist. He described an outing of the art class of which he was a member in Germany in such manner as showed him to be an artist in word painting, while his criticisms of the lantern slides shown that evening proved very instructive, and was fully appreciated by the club. This lecture was followed by a ten-minute talk by Mr. G. G. Johnson, one of the directors, in which he described, in humorous manner, some of the difficulties attendant upon procuring photos of the inhabitants of Chinatown. Mr. Johnson has been very successful in portraying the Chinese children, and his Chinese photographs are much sought after.

On December 28th, Mr. Oliver Lippincott, so well known throughout the country by his exquisite landscape photographs, gave a lecture on the "Grandeur of Nature," which, judging from the applause that often interrupted his remarks, was thoroughly appreciated. Mr. O. Granicher, Chairman of the Lantern Slide Committee, gave a scholarly paper on "Light and Lenses," beautifully illustrated. Captain James S. France, former Chairman of the Outing Committee, gave a ten-minute talk on "The Awkward Squad of the Camera," in which several of the members were good-naturedly "guyed" and the mistakes of the beginner humorously pointed out.

On April 11, 1901, the Channing Club of Oakland will give an amateur photographic exhibition in the parlors of the Unitarian Church. The exhibition will be the result of a competition which has been thrown open to all amateur photographers.

CAMERA CRAFT is informed that a young man, giving the name of Clinton Hensley and representing himself as being a member of the Indianapolis Camera Club, an organization not in existence, has been victimizing the clubs and dealers in the southern part of the State. If he is located, wire the officials of Los Angeles.

Archie Loryea, a well-known photographer of Spokane, Wash., died very suddenly as a result of heart disease at his home on November 30th.

MISCELLANEOUS NOTES.

A LOCAL EXHIBITION.

At the store of Lassen & Bien, on Stockton Street, an exhibition of photographic art was held last month, Miss Adams, Messrs. Piatt, Coombs, Maurer, Street and Dassonville contributing. Invitations were issued, which, in connection with the merits of the prints, drew a large number of visitors. Amateurs in smaller towns should take a hint from this. Wherever three or four advanced workers can be gathered together, the co-operation of the local dealer could no doubt be easily obtained. No little advantage would be derived from such a combination. Good will and fellowship would be engendered, the less advanced worker inspired, and his interest revived, all of which would rebound to the advantage of the dealer as well as the amateur.

A HINT AS TO SNOW SCENES.

"Photographers may obviate difficulties which are encountered in winter photography by the use of the bichromate ray filter. The intense light reflected by snow-covered objects contains a very abnormal amount of violet and ultra-violet light rays which act with extreme vigor upon all kinds of dry plates. The bichromate ray filter entirely absorbs these rays, making the image which falls upon the sensitive plate a harmonious one, as to the comparative chemical activity in the various parts of the picture. Such being the case, it is just as easy to photograph the detail in a mass of snow-flakes as in a pile of stones. The foreground and distance are filled with their properly modulated lights and shades, giving naturalness and perspective to the view."

From circulars containing pictures showing the result of photography with and without ray filter, that can be obtained by addressing the manufacturers, Messrs. Bausch & Lomb, Optical Co., Rochester, N. Y.

SOME SEPIA PAPER WRINKLES.

To insure the best effects with Sepia paper it should be washed and fixed immediately after printing. Prints which are allowed to lie over night, or for a longer period, before washing, lack the brilliancy and rich tone that can be secured by immediate washing.

Sepia paper must be kept in a dry place.

For the best results print Sepia paper under direct, bright sunlight.

In putting away a partially used package of Sepia paper be sure to put all of the wrappings about it as a preventive from moisture.

Recent improvements made in the manufacture of Sepia paper have improved its tone and keeping qualities. A careful attention to the above details, however, is necessary to the securing of the best results.

MINING PHOTOGRAPHY.

In advocating the use of photography in mining interests the *Australian Mining Standard* of October 25th says:

Mines are as a rule remote from the centers of population where photographers have their places of business, and when the visit has to be paid the expense makes the cost of a camera look a very insignificant sum. Then there are others beside directors to be considered. There are the shareholders and the general investing public, to whom the photographs of a mine, such as are frequently reproduced in our own pages, are the best possible means of conveying to them the knowledge which it is of common interest for them to possess. Yet it has often happened that the securing of three or four of these photographs, apart from any question of expense in reproduction, has cost considerably more than the value of the camera. More instruments on mines would therefore mean more pictures, more reproductions, more forcible evidences of progress, and more complete information at the disposal of shareholders as to the actual position of their own affairs. The matter is in a sense a small one, but it is one of those details which go to ensure success, and by wise directors it should not be overlooked.

The employees in the offices of the Rochester Optical and Camera Company of Rochester, N. Y., together with the heads of departments, were given a banquet on the night of December 9th by Harvey B. Carlton, general manager of the company. The menu card, a copy of which reached this office, would cause the sphinx to yearn for just a taste. The toasts were as follows, F. D. Morgan being toastmaster: "Money Matters," T. F. Barrows; "Push and Vim," J. A. Robertson; "The Road Side," R. L. Ennis; "Our Host," Joseph Goddard: "Good Cheer," B. L. Sellen; "The Stenographers," Carl Fisher; "Good Night," Martin Freidel.

INDEX TO CURRENT PHOTOGRAPHIC LITERATURE

AMERICAN AND FOREIGN

THIS INDEX COVERS ALL OF THE PRINCIPAL PHOTOGRAPHIC JOURNALS OF THE WORLD, AND GIVES ALL ARTICLES OF IMPORTANCE DURING RECENT MONTHS.

TITLE	PUBLICATION	AUTHOR
Aerial Perspective	PHOTO BEACON, Dec.	*J. A. Hodges*
Applied Photography, A Century of	PHOTO. TIMES, Dec.	*E. Lingan Bowlus*
Attic Studio	PHOTO BEACON, Dec.	*Dr. Deflepsen*
Aurora, Photographing of	PHOTO ERA, Dec.	*E. F. Stiles*
Automobiles, Speed of, Registered by Photography	PHOTO GAZETTE, Paris, Nov. 25	
Composite Landscape Photography	PHOTO BEACON, Dec.	*F. C. Baker*
Copying Stand	ENG. AMAT. PHOT., Nov. 23,	*Capt. J. C. Henderson*
Copying Stand	PHOTO BEACON, Dec.	*J. E. Hannson*
Figure Studies	ANTHONY'S BULLETIN, Dec.	*T. M. Sims*
Folding Stand	ENG. AMAT. PHOT., Nov. 16	*H. D. Gower*
Gum-Bichromate Colors, Preparation of	LIESEGANG'S PHOTOGRAPHISCHE ALMANACH	*R. E. Liesegang*
Imogen	LIESEGANG'S PHOTOGRAPHISCHE ALMANACH,	*R. Ritter Von Standenheim*
Imogen	ANTHONY'S BULLETIN, Dec.	*J. Gaedicke*
Intensification, Modern Methods of	ANTHONY'S BULLETIN, Dec.	*Dr. Eders*
Landscape Composition	PHOTO ERA, Dec.	*E. B. Richardson*
Lantern Slide Making for Beginners	PHOTO. TIMES, Dec.	*Primrose Hill*
Lippman Color Process	PHOTOGRAPHISCHE RUNDSCHAU, Nov.,	*Dr. R. Neuhauss*
Magic Lantern, How to Make and Use It,	CAMERA AND DARK ROOM, Dec.,	*L. A. Osborne*
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Numbering of Diaphragms / Decision of International Congress	PHOTO GAZETTE, Paris, Nov. 25	*W. Wallon*
Negatives, Indexing of	PHOTO BEACON, Dec.	*L. M. Tillinghast*
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Photo-collotype / Photo-zincography Making, Drawings for	CAMERA OBSCURA, Nov.,	*Maj.-Gen'l Waterhouse*
Philadelphia Salon	PHOTO ERA, Dec.	*O. I. Yellott*
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Squeegeeing Prints	PHOTO BEACON, Dec.	*G. H. Otis*
Toned Bromides, Stability of	LIESEGANG'S PHOTOGRAPHISCHE ALMANACH,	*J. Gaedicke*
Zero Plates	PHOTO ERA, Dec.	*The Crucible*

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BUSINESS NOTES.

Ernst Gundlach, the pioneer lens maker, has in preparation a new lens which will fill a long-felt want in the present lens system. It is an instantaneous wide angle, working at f/10, and fast enough for ordinary instantaneous work, yet giving a much wider angle than the symmetrical or rectilinear lenses. He is also about to produce a convertible anastigmat of two, three or four lenses, making three, five or ten different focal lengths. The new lenses will shortly be placed on the market by the Vive Camera Company of Chicago, for whom Mr. Gundlach is chief of the lens-making department.

The Century Camera Company of Rochester has been incorporated under the laws of New York State for the purpose of manufacturing folding hand cameras and a general line of fine photographic goods. While the company is a new one in the field, its officers and directors are all men of experience in the camera business, having been in touch with the trade for many years, by reason of their association with the original Rochester Optical Company, under the sole management of W. F. Carlton, and also its successor, the Rochester Optical and Camera Company. Mr. J. M. Walmsley, president of the new company, has been identified with the camera business for more than fifteen years. Mr. Gilbert E. Mosher, secretary, has a record of nearly ten years in the same line, while Mr. George J. MacLaughlin, treasurer, has spent over eight years in studying the requirements of the trade.

The Gundlach Optical Company of Rochester will put upon the market shortly a powerful field glass of the prism style, similar to the Zeiss and Goerz glasses.

C. J. Crandall and W. D. Medill purchased the photograph gallery of W. H. Hill of Pasadena, and took possession on December 1st. Mr. Hill will retire from business and take a much-needed rest.

A. G. Reynolds is preparing to open up a first-class photograph gallery in Tillamook, Oregon.

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Camera Craft

Salon Number

February, 1901

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Note: — Subscribers who do not receive Camera Craft promptly will confer a favor by sending a postal card to this office. The omission will be supplied and an investigation made. The editors will, at all times, be ready to carefully consider manuscript and photographs. When possible, all manuscript should be typewritten.

All photo supply dealers and news dealers are authorized to receipt for subscriptions in our name. Back numbers can be obtained direct from the publishers.

A reprint of the Holiday number of Camera Craft, with the big, three-color supplement "Wawona," is now ready for distribution. The demand for this number has been extraordinary, and no lover of pretty pictures should consider his file complete without a copy of it. For the next thirty days a copy of this number, including the supplement, will be sent free to new subscribers. The subscription price of the magazine is $1.50 a year, in advance.

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STUDY: HEAD AND HAND

AWARDED FIRST PRIZE IN PORTRAIT CLASS, FROM THE COLLECTION WINNING THE GRAND PRIZE FOR THE BEST INDIVIDUAL DISPLAY AND WINNER OF THE GOLD AND SILVER "CAMERA CRAFT" MEDALS.

Arnold Genthe.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, FEBRUARY, 1901. NO. 4.

IMPORTANT LESSONS OF THE FIRST SALON.

BY ARCHIBALD TREAT.

FROM THE GRAND PRIZE COLLECTION.

I REMEMBER the delight I felt in reading "The Wreckers," one of the wonderfully realistic romances of Robert Louis Stevenson, and I recall the sensation of displeasure I experienced when shortly afterwards I came across a description of the method he had employed in the construction of the tale. I would rather not have read the letter, preferring the glamor of the fiction. It is, therefore, with considerable trepidation that I enter upon anything which would seem a narrative of the executive sessions of the Hanging Committee, and if I do so it is simply because I deem frank confessions sometimes of aid to future sinners.

In the first place the committee was called upon to pass upon about fourteen hundred photographs sent in for inspection, and the fact that but four hundred and seventy-five were selected shows that the task was not a small one. Necessarily the best work set the standard, and everything that did not come within reasonable distance of it had to be rejected. Nevertheless, the committee was charitable, far more so than it should have been from the principle of a salon, and much more so than it should ever be again. For instance, if a contributor sent in a number of prints of only ordinary merit, all of which, from a critical view, should have been rejected, the committee unbent itself a bit and permitted at least one to go in if within reaching distance of excellence. To have done otherwise would have had the result of discouraging many who had contributed to an exhibition for the first time, and who had not yet learned the degree of merit necessary for such public displays.

I make the suggestion now, that the Hanging Committee of the Salon of 1902 be not only possessed of the necessary technical knowledge of what is good in photography, but that they be stony-hearted fellows as well, to the

end that no apologies be necessary. For it is not the number of prints shown that go to make a successful exhibition, but the quality of the work. Had there been but three hundred prints on the walls of the Hopkins Institute, that number would have sufficed as well as four hundred and seventy-five; and it is not saying too much that in the present instance one hundred and seventy-five could have been left out without loss.

NEGATIVE BY C. E. TOWNSEND, OAKLAND. "WHA' FO."

As for the general quality of the work shown, I venture to say that if the contributors who had their work returned had not seen the pictures accepted, they would have gone away with the idea that the judges were either prejudiced or knew little of technical photography; but I believe that now, after an impartial view of the exhibit as a whole, they will have come to the conclusion that their conception of what was requisite had been erroneous.

The committee paid small attention to processes, and none to the name of the producer. I remember with embarrassment that on one occasion I had delivered myself of much uncomplimentary criticism before I discovered that the print under examination was the work of one of the members of the committee then standing beside me. Results only were considered, without regard to the means by which they were produced. And this is as it should be. Some painters have been known to scrumble their foregrounds with a bit of an old hair comb, others to scrape obtruding pigment with the palette knife to get the effects desired. What matters it, as long as the result is good?

There is a class of photographers who seem to think that each print must possess certain technical points of excellence before it can pass the toll-gate of their acceptance. This would be well enough if they agreed, with those who

look for results merely, as to what constitutes excellence. The difficulty consists in the point of view. The former cannot forgive the absence of those things which they deem necessary to successful photography; the latter look upon the result, regardless of things done or left undone, providing the result is worthy.

A humorous illustration of the position of the worshippers of technique was the effort at the Camera Club one night to obtain a freak print. It was under-exposed, over-developed, and otherwise shamefully maltreated, and then gleefully hung upon the walls as an eternal bad example for members yet to be. But what was the astonishment of these ravishers when told by two artists, whose ability to judge even they would not question, that their type of photographic immorality, exposed like a whisky-befuddled repentant at a Salvation Army meeting, was artistic. The reason is quite simple. With all their pains the revellers had not destroyed the soul of the picture, which continued to appeal through the mist of an unsympathetic environment.

This, then, is the difference; a difference and a point of view fully recognized by the Hanging Committee, and which actuated its members in their selection, with the few exceptions heretofore noted. Technically perfect photographs, mere transcriptions of nature, were quickly passed. The open sesame was individuality — soul. Lest, however, injustice was done in the necessarily hurried first day's work, all were gone over a second time, and a hold-over, or doubtful, class established, which was gone over the third time,

NEGATIVE BY F. E. MONTEVERDE. THE FISH CLEANER. COPYRIGHTED.

so that, so far as the committee were competent to judge, the exhibitors at least received fair play, the error, if any, being on the side of too great leniency.

To comment upon the pictures of an exhibition is merely to give expression to individual opinion; yet it may not be inopportune to mention a few of

NEGATIVE BY MRS. A. NELSON CROWELL, SAN FRANCISCO.

TRILLIUM.

Second Prize—Still Life.

those prints which shone out from their fellows as one passed up and down the well-covered walls.

In portraiture, Dr. Genthe easily held his own, which is but another way of saying that he excelled. However laymen may differ as to his "Study; Head and Hand," the first prize picture, I think artists will agree that it is a triumph of photography, deserving of every praise, and entitled to be admitted into the inner circle of the fine arts. Its highest commendation, however much it may sound like treason, would be that no uninitiated person would ever take it for a product of the camera.

Laura Adams was justly entitled to the second prize in this class. Her

work shows marked individuality, and if she does not fall a victim to the Burne Jones school, her work bids fair to place her far to the front in the next salon.

In the landscape class it is to be regretted that Mr. Maurer's "The Storm, Mexico," was not in competition, as it was one of the gems in a class that was

NEGATIVE BY H. E. HOOPES, PASADENA.

INTERIOR CONGRESSIONAL LIBRARY, WASHINGTON, D. C.
Second Prize—Architecture.

singularly few in number. His Indian portrait, "Rain in the Face," was one of the most dramatic portraits shown.

George W. Meeker's "Passing Shower" deservedly caught the eye of the Prize Committee. It is a charmingly simple landscape, free from freaks and fads.

Dassonville's "Morning Lights" reminded the lover of Harrison's pictures of that artist's compositions. They gained much from the method of printing employed. His "Sand Dunes" was one of the best landscapes displayed, showing individuality and effective arrangement of a simple subject.

"Showery Weather," by J. H. Field, is deserving of special mention, being one of the gems of the collection.

William F. James' "Landscape" was a fine example of what may be done, by those who know, with a subject so simple that most people would pass it by.

A small portrait by H. D'Arcy Power, entitled "A Philosopher," hardly bigger than a baby's hand, was, to my mind, one of the very best things of its class.

In the genre class, the Prize Committee chose "Zuni Women," by F. H. Maude, probably because of its simple effectiveness and the delightful absence of any straining after effect.

It is impossible, in the space at my command, to mention all of the pictures which deserve notice. I cannot pass, however, the wonderful work of Dr. Det-

NEGATIVE BY EDWARD LEAMING, NEW YORK. LANDSCAPE.

lefsen, the "Dryad" of C. Yarnall Abbott, and the nude studies of "Zindara" and "Grief," by Lippincott. Were I called upon to show the stranger the most remarkable work of the salon, I would take them to stand before the last-named pictures.

The influence for good of such an exhibition as that just passed can hardly be over-estimated. The work was all of a serious nature; the results, those that follow conscientious effort. There is little of the snap-me-quick sort. The person who believes that genius is the divine art of taking pains will here find his proofs. Photography is so inflexible an art that much experimenting is necessary before the student feels that his product is worthy. A painter can, almost with a stroke of his brush, change the expression of a face, or the pose of a limb; but a photographer must start again, and, perhaps, yet again. And after the negative comes the problem of presentation, just as after the etcher's place is finished, the printer's art is summoned, for upon the latter depends much of final success.

NEGATIVE BY J. H. FIELD, BERLIN, WIS.

SHOWERY WEATHER.

Another pleasing result of the exhibition is its value from an educational standpoint. The photographer often begins with a kodak, snapping aimlessly about, until he begins to appreciate, as he invariably will in time, if he has any capacity whatsoever, the power within his hands and the number of available subjects about him. Then he begins to take an interest in things artistic, and this will lead him to a love for, and knowledge of, sketches, etchings, engravings and paintings. He is thus led gradually into an understanding and comprehension of what is worthy, until finally, either by his own work or an intelligent appreciation of the work of others, he reaches a point of refinement that permits him to be admitted into that noblest of circles, the Brotherhood of Art, an association which knows neither country nor creed and which bows only to that which excels. When the next salon comes to pass I confidently expect that the number of exhibitors will be doubled.

THE GRAND PRIZE EXHIBIT.

A CRITICISM OF THE WORK OF ARNOLD GENTHE.

By Oscar Maurer.

Undoubtedly the most interesting group of photographs on the walls of the salon is the exhibit of Dr. Arnold Genthe, which not only won "The Grand Prize Camera Craft medal" for the best general display but also the first prize in the portraiture class. The picture selected by the jury of award as the first prize portrait is undoubtedly the most interesting picture in the exhibition from the photographer's standpoint. From all over the world criticisms will come of the "Study; Head and Hand." As it is, the picture received the highest award of the salon.

Unknown only a few years ago, Dr. Genthe has sprung into a prominence which bids fair to become national. He expresses an individuality in his work which stamps it as something distinctive and apart from the conventional photographic portrait.

Notable among the many excellent pictures of his collection is the portrait of Henry Miller as Sydney Carton (No. 190). The difficulties that were overcome in this production can only be appreciated by the photographic worker who has tried similar composition. As an example of masterly treatment the portrait of Mrs. George Osbourne (No. 198) stands out prominently.

No. 202, "Study of Black Drapery," sets forth the dangers that are liable to entrap the photographic artist. The head and shoulders are full of beauty but the long, light arm cutting across the picture is an unpleasant feature. Two portraits of Paderewski are shown of which the profile is undoubtedly the better.

No branch of photography offers greater opportunities than the taking of children. In "Good Friends," Dr. Genthe has triumphed over difficulties that are many. Unconscious of their surroundings the two little girls are full of glee, and were caught by the camera at the happiest moment.

THE GRAND PRIZE COLLECTION.

"A Good Story" is another example of the advantages of quick photography. Capt. Jack Crawford, the subject, was actually relating one of his interesting anecdotes, when the photographer exposed the plate. Jack Craw-

NEGATIVE BY ARNOLD GENTHE.

STUDY OF BLACK DRAPERY.
The most severely criticized print of the Salon.

ford was greatly surprised when told that his picture had already been made.

Dr. Genthe's Chinatown pictures are the result of much effort and many disappointments. His street scene (No. 199) is the best picture of its class yet seen by the writer.

The display consisted of twenty-seven pictures which averaged high in point of excellence, and if some of them were open to criticism it is but fair to admit that nearly every one brought out some point of excellence, setting a standard that will be hard for others to follow.

A misstatement occurred in the article describing the big camera owned by a Chicago photographer, printed in the January number of CAMERA CRAFT. The plates for the camera were made by the G. Cramer Company, instead of M. A. Seed & Co.

THE POPULAR SIDE OF THE SALON.

By Mabel Clare Craft.

The painters will consider it a sad commentary on San Francisco's artistic tastes that a larger crowd viewed the pictures of the Photographic Salon on the opening night and the others that followed, than have stood before the semi-annual exhibitions of the Hopkins Art Association for many a year. Whether this was because of the great popular interest in photography or because the Camera Cub, very youthful, very lusty, and very much alive, was behind the exhibition, no one can tell. But the fact remains that the opening night saw a large and approving crowd swarming before the most important and interesting exhibitions, and one cringed and craned for a view of those pictures which were voted, by popular consent, the most telling and interesting.

There is vast encouragement in numbers and, looking at that crowd, I could not believe that every person there was interested because he or she owned an ubiquitious little kodak and had come to see how the shining lights of the photographic profession managed their lights and shades and composed their pictures. The interest was certainly deeper than that. One of the greatest growths of the nineteenth century was the love of nature, which scarcely existed before Wordsworth wrote "The Excursion" and turned the eyes of all English-reading people to the woods and fields. Since Wordsworth crystallized his love of flowers and spring into words, there has been a steady turning to the vast out-of doors, and mankind has come to find more and more happiness in fields and woods and water. Since Wordsworth wrote there has been no more potent element in the worship of Pan than Photography, that wise hand-maiden which leads the enthusiast in out-of-the-way paths in search of pictures composed by Nature, herself. The man who hunts with a camera instead of a gun is becoming more common every day, as witness the animal studies in the late exhibition. Nor is it given to every painter to express the mighty spirit of Yosemite as Boysen expressed it in some of his pictures, bringing back to every nature-lover the thrill that lies in wait at the foot of El Capitan, or the blurr of the eye and the catch of the breath that sweeps you off your feet when you whirl suddenly around a turn of the road and see the valley, blue and quivering, stretched out below you from Inspiration Point. Some painters, great ones, can compose as well as Nature, or better, but the photographer, with a fine feeling which is scarcely as yet appreciated, finds these ready-made pictures and catches them forever on his sensitive plate, later reproducing them to delight the true lovers of that spot forever. In other words, a fine photograph is more satisfying than a mediocre painting.

And, in the new portraiture, the spirit of the sitter shines out — no longer the formal smirks and grins, expression all touched out as in the old school. The new photography shows men and women — real ones — their souls, for better, for worse, in their faces and posture, and this is why crowds came to hang in front of the portraits of the salon. These are pictures that are worth while, and as long as photography stands for so much truth and sincerity in Nature and personality, just so long will cultured people find the salon intensely interesting, and just so long will you find a deeply absorbed crowd studying the pictures in season and out.

TEMPER YOUR CRITICISM.

By the Editor.

Nothing of importance was ever accomplished in the world without an aftermath of criticism. So long as the criticism is honest injury cannot be done the finished work, but, on the other hand, it may be valuable in directing attention to errors which have been committed.

Let us remember this in commenting upon the work of the salon committees, so that nothing be done to tear down the fabric created at the expense of much time and intelligent effort. If, in the opinion of the individual thinker, an error has been committed, let him weigh the cause of his dissatisfaction against the general good of the finished work, and if the former outweigh the latter let him speak. If, on the other hand, he be convinced that the good of the work be greater than its errors let him remain silent.

Useless discussion is the one thing which CAMERA CRAFT seeks to avoid. Its columns, however, are always open to intelligent discussion, and the future welfare of the Photographic Salon is important enough to especially invite the opinions of the photographers of the West. There remains no doubt as to the permanency of the salon, and it will only be through a thorough discussion of the conduct of the first one that ultimate perfection of management will be secured. Therefore, if our readers have anything to say let them write to the editor.

NEGATIVE BY GARRETT L. REILLY PHILADELPHIA.

GUARDIANS OF THE DOGE'S PALACE.

BRIDAL VEIL FALLS FROM THE MEADOWS.

UPPER AND LOWER YOSEMITE.

WATERFALLS OF THE YOSEMITE.

By Julius Padilla.

Many years ago an Eastern artist, with a world-wide reputation, entered Yosemite Valley for the first time. He was accompanied by his wife and several local artists who desired to show the great man the valley at its best and also to watch the artist at his work. When the panorama of the valley began to unfold before the eyes of the party, the artist with the great name began to exclaim, "Sublime! Majestic! Wonderful!" At last he was forced to halt through sheer excitement.

"Never—never has this place been painted," exclaimed he, dramatically.

His companions heard his enthusiastic outbursts with satisfaction and congratulated themselves upon being associated with a man who would paint the Yosemite as it should be painted. The party camped for the night and early next morning the artist started out alone with his sketch book and stool. He was gone all day but returned just as the last shadows began to melt into darkness.

"What did you get, dear?" queried his wife.

"That——!" shouted the artist, as he dashed his sketches to the ground. He had failed as others had failed, and for the rest of the trip was a quiet and subdued, great man.

I had been told this story before I made my first trip to the valley, and therefore went

NEVADA FALLS.

YOSEMITE FALLS FROM THE MERCED RIVER.

prepared to be surprised and awestruck. Nevertheless, I took my camera, for I thought that if the mountains and spires proved too great for my dinky 5x7, still I could find something to make pictures of which would not look like microscopic reproductions of famous paintings.

Scarce had I begun the approach to the valley, by way of Ahwahnee before the idea struck me of making a series of pictures of the falls. No sooner had I determined upon this method of saving plates than a slight turn in the road brought Bridal Veil into view. Often had I heard the beautiful fluted sides and the delicate, shimmering mist of the immense volume of water described, but the same feeling came to me that the

VERNAL FALLS.

UPPER YOSEMITE FALLS.

Eastern artist experienced when he dashed his portfolio to the ground; yet I unlimbered my camera and bravely started in upon the work I had mapped out for myself.

It is not necessary for me to describe in detail the manner in which I proceeded with the work — let the pictures speak for themselves. Before I left the valley I had taken every fall from two or three positions, and to this day I believe that I have never accomplished a greater or more satisfactory work. To the amateur who expects to make the trip let me say that unless some definite plan is laid out for the work to be done the result will be failure. The ever-changing pictures in the valley offer many temptations, and before the

photographer realizes it his desire to take away with him photographs of everything sweeps his judgment away and his work is unsatisfactory.

For the purpose of giving the reader a key to the pictures which accompany this article I append a table compiled by Captain Wheeler, U. S. A. It will give some idea of the difference between the appearance of the pictures and the reality:

WATERFALLS OF THE YOSEMITE.

Indian Name.	Signification.	American Name.	Height of Falls.
Pohono	Spirit of the Evil Wind	Bridal Veil	860 feet
Yosemite	Large Grizzly Bear		2548 feet
Upper Fall, 1502 feet; Middle Fall, 559 feet; Lower Fall, 487 feet.			
Pi-wa-ack	Cataract of Diamonds	Vernal	336 feet
Yo-wi-ye	Meandering	Nevada	617 feet
Tu-lu-la-wi-ak	Rushing Water	South Fork	500 feet
Loya		Sentinel Fall	3270 feet
Tu-tock-an-u-la	Great Chief of the Valley	El Capitan	7012 feet

LOWER YOSEMITE FALLS

NEGATIVE BY MRS. CHAS. E. LADD, PORTLAND.

THE PHANTOM WOOD.

ARNOLD GENTHE. BY HIMSELF.

A CRITICAL REVIEW OF THE SALON PICTURES WITH A FEW WORDS UPON THE TENDENCY OF THE PHOTOGRAPHERS.

ILLUSTRATED WITH SOME OF THE PRINTS.

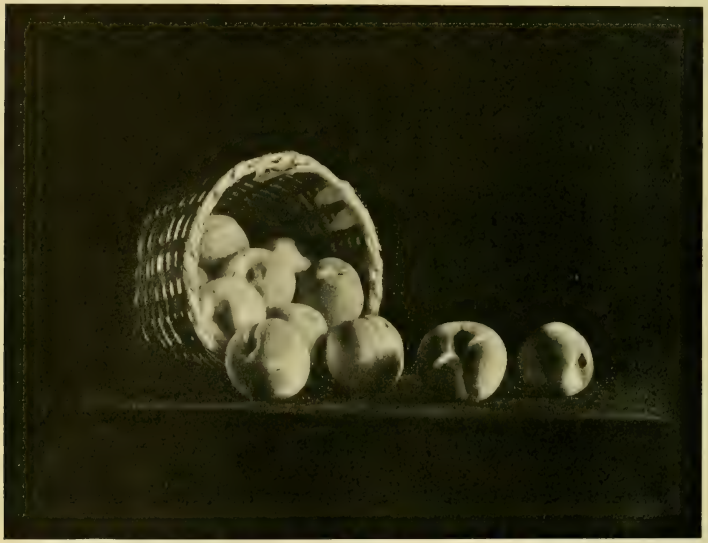
BY ARNOLD GENTHE.

To give a complete criticism of the work exhibited at the salon, at which were shown nearly five hundred photographs, would require a whole volume. Everybody, therefore, cannot be mentioned, but I hope that I have not overlooked anything of importance or of special interest. Such a criticism of the individual work of an exhibition will hardly make interesting reading, yet it will, if it is the result of serious and quiet research conducted *sine ira et studio*, not be devoid of some value.

Let us first look over the pictures that were sent by Eastern workers. Of these photographers, whose work we had been looking forward to so eagerly, the most important is undoubtedly C. YARNALL ABBOTT of Philadelphia. His two large heads (Nos. 360, 361) command immediate attention. One, a profile, is a gum print in brick red on a grayish green mount, framed in a narrow black moulding; altogether a most effective scheme. The other is in a purple-red, which suffers a little by being hung too near the former. Technically, both prints are masterpieces; indeed, one wonders that such things can be produced by purely photographic means. The hair in the profile seems rather massive, but the outline of the head against that wonderfully loose background is of great fascination. The lights and shades in No. 361, "Herodias," are masterfully handled in broad, bold masses. The "Dryad" (No. 359) is a nude out-of-door study that is in every way satisfactory. The head of the young girl is seen against the dark foliage, through which the sunlight gaily blinks, while the contour of the body effectively harmonizes and contrasts with the lines of the tree upon which she is sitting. There is a freedom and abandon, and something poetical and refreshing in this composition, which makes this study absolutely unphotographic. The "Study for Decoration" (No. 358) is, after all, not very decorative. The portrait of the old man is full of life and interest, but the rectangular effect of the right shoulder is somewhat disturbing. A glycerine-developed platinum print of a young girl (No. 362) is of marvelous delicacy, which we find equaled, perhaps, only in R. F. DETLEFSEN'S (Chicago) "Alter Ego" (No. 9), a very original conception, artistically executed. The softness and delicacy of tone which we admire in this picture, and also in the girl's head (No. 4) and in the figure (No. 7), becomes rather a weakness in

DETLEFSEN'S other prints. One longs for a strong note among these pale, washed-out tones.

FLORIDE GREEN, who is working with such success in New York, is represented by two very large and a number of small prints. Her best picture is undoubtedly No. 432, a lady seated in a richly carved chair, her head resting on one hand, while the other holds a little pet dog. The whole thing is cleverly



NEGATIVE BY WILLIAM J. CASSARD, NEW YORK. PEACHES.

put together and remarkably well lighted for a picture that was not taken in the studio. The portrait of MISS GREEN'S mother (No. 429) is an excellent likeness, which may also be true of No. 431, a large print of a child; however, there is something stary about the eyes that is not pleasing. In her other pictures MISS GREEN hardly does herself justice. No. 426 is a rather commonplace treatment of a very interesting head, and in No. 427 the line of the back is not well handled.

Another New York photographer, who, unfortunately, shows only one print, is A. WENTWORTH SCOTT, whose "Father Time" is a fine, vigorous study (in sepia, on Whatman paper) of a picturesque old man. EDWARD LEAMING (New York) shows a picture of a mother and child (No. 216) which would be greatly improved by a softer print and a different frame. His landscape (No. 217) is better.

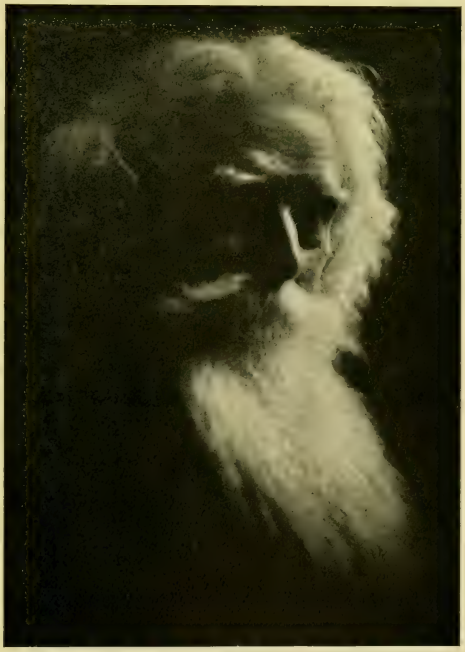
WILLIAM J. CASSARD (New York) exhibits some studies of fruits and birds, the best of which (No. 372) is a photograph that well suggests the color and velvety surface of peaches. His "Teal Ducks" (No. 371) does not come up to the standard set by W. J. STREET'S excellent study of the same subject (No. 126) about which I shall have something to say later.

ARTHUR HEWITT'S (East Orange, N. J.) portraits are all very interesting,

even if they are not very original. The picture of a man with a big hound (No. 331) is a better composition than that of "Mother and Child" (No. 336), in which the book is too important a factor. The child's portrait (No. 333) is in good tone, and No. 338 is an unpretentious little out-of-door study full of sunlight. The well-modeled head of VIRGINIA HARTSHORNE, Philadelphia, (No. 400) would be better without the V-shaped drapery.

A picture full of promise is GARRETT L. REILLY'S (Philadelphia) "Guardians of the Doge's Palace" (No. 106). The two figures seated on the stone bench are admirably posed against the wall upon which the sunlight plays freely. The solid shadow of a column cuts the spacious foreground, thus adding a peculiar interest to this picturesque composition. The clean, clear, absolutely uninteresting picture of the "Princeton Library" (No. 105) by the same man is disappointing.

Some excellent landscapes are shown by the Eastern men, but only a few can be mentioned here. J. H. FIELD (Berlin, Wis.) has in No. 67 a very wet, rainy picture, well put together. CHARLES E. FURMAN (Washington, D. C.) exhibits in No. 68 a fine gum print, in red, of a well-chosen view. His other picture, No. 69, though technically perfect, does not satisfy one on account of the awkwardly posed figure. Very original, indeed, is the work of F. K. LAWRENCE of Chicago, especially his "Sand Dune and Sky" (No. 417) the simplicity of which produces a rather striking effect. Simplicity is the keynote of all his pictures, which show a fine feeling for atmospheric effect. The latter quality, so essential in the landscape photographer, is abundantly found in W. F. JAMES' (Chicago) work, and in some of H. H. LATIMER'S (Boston) marines. Especially is this so in No. 284, "Eventide," a schooner under sail, silhouetted against the evening sky, gliding quietly over the calm sea. His "Testing Fruit" (No. 288) is one of the best genre pictures exhibited. Neither THOMAS A. MORGAN nor GEORGE A. GREEN of Denver succeed in presenting the rather hackneyed theme of the "Waning Day" in an original way, but the latter's "After the Chase" (No. 409) is at least a refreshing subject. The head (No.



NEGATIVE BY A. WENTWORTH SCOTT, NEW YORK. COPYRIGHTED.

FATHER TIME.

390) and figure (No. 390A) of ELLA BADGER (Denver) are interesting models well handled.

It is to be regretted that EDGAR FELLOWS of Portland is not represented; his work is well known through the photographic journals, and makes one rather desirous to see the original. However, Oregon has sent in some good things. MRS. MYRA A. WIGGINS of Salem, Or., sends a delightful little genre picture, "Hunger ist der Beste Koch" (No. 114) that is perfect in detail. Her "Passing Through the Mist" (No. 115) is an original conception, giving a very realistic idea of a misty morning. The "Phantom Wood" (No. 72A) of MRS. CHARLES E. LADD would be a very good picture if there were less detail and a better subordination of unimportant masses. The reproduction in the catalogue appears to greater advantage than the original, because the half-tone process accomplished what the photographer neglected to do in her print. A more interesting foreground would have improved R. B. LAMSON'S good sheep study, No. 249.

E. S. CURTIS' (Seattle) Indian studies occupy quite a place by themselves. They are of immense ethnological value as an excellent record of a dying race, and most of them are really picturesque, showing good composition and interesting light effects. "The Moqui Chief" (No. 40) is a stunning portrait of the haughty Indian, and is, perhaps, even of greater artistic merit than "The Mother" (No. 47) and "The Moqui Girl" (No. 36), both pictures of a great human charm. "The Three Chiefs" (No. 39) just misses being great. If the head of the foremost horse could have been turned so as to break the straight line formed by the three horses the composition would have been perfect. But, even as it is, the photograph is a very beautiful rendition of a picturesque phase of Indian life. MRS. CLAUD GATCH (Salem, Or.) has certainly a good

NEGATIVE BY DR. F. DETLEFSEN, CHICAGO. ALTER EGO.

eye for unusual light effects. Such problems as she tackles in No. 294, "A Spinning Song," taken against the light, could be made very interesting.

Among the pictures that Californians have exhibited are many masterpieces. The work of OLIVER LIPPINCOTT (Los Angeles) attracts great attention. His "Moqui Belles" (No. 393) show a skillful handling of a very difficult

NEGATIVE BY OLIVER LIPPINCOTT, LOS ANGELES. MOQUI BELLES.

subject, the light effects being especially pleasing. His nude studies, a la Henner, are good, and we must admire the superb figure of the woman in No. 397. The "Sheep Study" (No. 398) I consider the best of the many pictures in the exhibition treating the same subject. The artistic effect of most of LIPPINCOTT'S pictures is marred a little by his habit of writing the title of the

photograph in glaring white on the frames, which, by the way, are not always appropriate.

I do not know whether or not A. C. PILLSBURY of Los Angeles is the same Pillsbury who brought home such excellent studies from Alaska two years ago. If so, he has not sent his best work to the salon. A rather good picture comes from H. P. LOVICK of Pasadena, "The Mission Tower" (No. 452), which would show to better effect in a different frame.

NEGATIVE BY J. R. MOORE, SAN FRANCISCO.

THE SPANISH DANCER.

H. E. HOOPES of Pasadena has a study in No. 403, "Despair," that is much superior to his No. 402, with its very bad, angular arm. Two of his "Interiors of the Congressional Library," making hardly any pretense of being picturesque, are not even trimmed straight (Nos. 404, 406), a rather unpardonable negligence.

GEORGE R. BUTLER of Salinas has such fine models that he ought to be able to achieve something good with them, but not so long as he poses his school boys (No. 236) before a painted schoolhouse in the studio. Why not make the experiment out of doors?

From San Jose we get a very satisfactory picture of the "N. S. G. W. Jubilee" (No. 214) by LOUIS T. LENZEN. GEORGE C. MEEKER'S best landscape, "The Passing Shower" (No. 51) is a carefully selected and well-balanced picture, with a fine feeling for atmosphere. Landscapes, by the way, seem to

be the favorite theme of the Californians, and almost all the work is good, even if not original or particularly striking.

JULIUS BOYSON'S large picture "El Capitan" (No. 320) gives an excellent idea of the majestic grandeur of the Yosemite, and is even, from a merely pictorial point of view, not without merit.

PROFESSOR O. V. LANGE, Berkeley, must be counted among the best landscape photographers represented at the exhibition. He has a marvelous faculty for rendering delicate atmospheric and light effects, such as shown in his "Tamalpais in Sunset Light" (No. 278), in which the luminous silhouette of the mountain stands out clearly against the evening sky. "The Silent Hours" (No. 280) is, perhaps, his most satisfactory picture, although the panoramic view, "After the Storm" (No. 273), is a very meritorious piece of work. His flower studies are better than any at the exhibition.

A man with a good eye for catching things is H. G. PONTING of Sausalito, who, in his mule picture, "Awaiting the Kaiser's Orders" (No. 212), shows

NEGATIVE BY C. YARNALL ABBOTT, PHILADELPHIA. DRYAD.

that he has the desirable quality of being ready with his camera at the right moment. "The Fisher's Return" (No. 215) is a good motif, but we could easily spare five inches of the left side of the photograph. EDWIN R. JACKSON, who has become noted as the illustrator of "A Gentleman from Indiana," is not particularly well represented. His "Christmas Eve" (No. 117) will probably appeal to the public fancy, but can hardly be considered a good picture. A. W. RICE, Haywards, has a very amusing photograph of "A Dozen Rabbits" (No. 252), the good print being spoiled by a very bad signature. His "Seeing Things" (No. 255) is, as a picture, of greater value. MRS. MARY DICKSON of Alameda would have made a good picture of her "Mill of Silence" (No. 107) if she could have chosen a stronger foreground.

The two big enlargements (Nos. 443, 444) which the well-known war correspondent, CAPTAIN JAMES F. J. ARCHIBALD, exhibits are not only interesting from a historical point of view, but have a decided artistic merit, at least "The Entrance to Pretoria," in which the slight blur of the negative rather helps the enlargement to give the idea of motion. GEORGE L. WILCOX of Berkeley has a very good idea of how a portrait ought to be taken. His "Portrait of Self" (No. 17) is really a masterpiece, well lighted and with a transparency of the shadows which we do not find in many portraits. His likeness of men seems to me a little monotonous in their treatment, an effect that is enhanced by the sameness of the deep, heavy frames. "Child Study" (No. 12) is more satisfactory. CHARLES S. TOWNSEND of Oakland shows a delicate study of a profile (No. 325) and a striking picture of a Chinaman (No. 327). In his landscapes he shows little individuality and a tendency for inky blacks. T. D'ESTRELLA (Berkeley) has made a good snapshot of two cats on the lookout for rats (No. 316)

NEGATIVE BY F. M. STEADMAN, PUEBLA, MEXICO.

PORTRAIT.

The work shown by the local photographers possesses, with some exceptions, a remarkably even and good quality. I think that the jury must have been particularly severe with the San Francisco photographers and weeded out mercilessly all pictures not up to the mark. The stars of first and minor magnitude are equally well represented. OSCAR MAURER'S Mexican photo, "The Storm" (No. 166), which attracted a great deal of attention at last year's Chicago salon, is a remarkably well-balanced composition, with a careful consideration for every detail; it is a perfect picture. The "Street in Zacatecas" (No. 159), with its background of flat roofs and its very interesting figure in the center, could be improved, I think, by being made into an upright panel;

three inches of the left side could easily have been left off. The portraits which MAURER exhibits show that he has succeeded in bringing them up to the excellency of his landscape work, since he has overcome his tendency to lose the modeling in the high lights. That old fault of his can only be detected in Nos. 160 and 161, while the picture of "Mr. Neilson," and especially No. 163, "Portrait of Mr. C.," are well lighted and interestingly handled portraits, full of life.

Among W. E. DASSONVILLE'S landscapes are three beautiful prints. "Twilight on the Bay" (No. 142) is a weird and realistic study on which much

NEGATIVE BY A. L. COOMBS, SAN FRANCISCO. MARINE.

care has been expended, as also the well-selected frame denotes. The yellowish green tone of "Morning Lights" (No. 147) helps this cleverly composed picture much. The sky in "The Hay Barge" is wonderfully luminous. But most of his other landscapes, good as they are, if viewed singly, make one rather realize the monotony of a variation of the same theme. Yet DASSONVILLE has very original ideas, and we must expect great things from him. W. J. STREET has a fine eye for picturesque scenes; his "Turning of the Tide"

NEGATIVE BY H. G. PONTING, SAUSALITO. AWAITING THE KAISER'S ORDERS.

(No. 131) is one of the best things in the salon, a very simple and original composition, in which we cannot but admire the perfect rendering of the ærial perspective, such as one seldom gets in a photograph. The "Passing of the Storm" (No. 130) in which the fantastic clouds seem to be emulated by the smoke of a little black steamer, the "Return of the Flock" (No. 129), with its well-selected background, and "In the Pasture" (No. 132) have all good atmospheric effects, but as a composition, the latter cannot compare with the two others. The still life, "A Pair of Teal" (No. 126) is a very successfully arranged picture, very plastic and with an astonishing preservation of texture. H. B. HOSMER is, perhaps, not as well represented as he might be. He has, however, one little gem, "In Mark West Creek" (No. 265A), a beautiful print of a perfect negative, in which there is nothing of the hardness we find in some of his other pictures, particularly in the "Lone Fisherman" (No. 262), which would be better by having only a

NEGATIVE BY H. B. LOVICK, PASADENA. THE MISSION TOWER.

little bit of sky showing. "Alviso Marsh" (No. 260) has an excellent sky, and the play of light in the "Spanish Hut" (No. 265) is very interesting.

W. J. PIATT has evidently made an effort to be represented in all the versatility of his talent. His landscapes are never commonplace; in fact, one could hardly expect a commonplace thing from the man who conceived the idea of that original composition of "The Chimes" (No. 227). The well-known picture, "At Land's End" (No. 219), is spoiled by a very ordinary frame. His coon pictures are most successful in their rendering of the bronze skin of the subjects. The study of a girl playing the mandolin (No. 230) is an elaborate picture of good tone, but the parallelism of lines ought to have been avoided. His Chinese picture, "At the Steps" (No. 224), must be considered one of his best views of Chinatown in spite of the absolutely white foreground. What can be done with a rather uninteresting subject he shows in "The Varnish Boiler" (No. 218), in which the light is admirably handled.

NEGATIVE BY ELLA BADGER, DENVER. A PORTRAIT.

NEGATIVE BY CAPT. S. PRATT, U. S. A.

Watch the green breakers
And the wind-tossed foam.
—*Jean Ingelow.*

A. L. Coombs exhibits a "Marine Study" (No. 374), of which he ought to be very proud. I have never seen in a photograph the motion of water and the play of sunlight so realistically rendered. Of equal excellence is a study of a wave by Captain S. Pratt, U. S. A. (No. 240); the majestic sweep of the green wave, the reflection of the white foam, and the filmy spray through which one sees the distant coast, are very fascinatingly rendered.

There are quite a number of landscape photographers represented by one or just a few prints of various merit. I mention I. O. Crosscup, whose "Sunrise" (No. 84) I could take for a water color if it were not hung in a photographic exhibition. George W. Lewis has, in his "Winter Sunset" (No. 110), with its weird sky and strangely parallel lines of the ebbing water, made a picture that impresses one as being quite Japanese. The green carbon by L. M.

NEGATIVE BY W. E. DASSONVILLE, SAN FRANCISCO. MORNING LIGHTS.

Kaiser, "Crossing Place" (No. 108), is a decidedly clever composition and shows much feeling. E. G. Eisen has a very simple and quiet study, which he calls "The Close of Day" (No. 434), a title that would also fit D. L. Cupples' rather good evening effect, "Eventide" (No. 136). To the technical treatment of the print O. H. Hansen seems to have devoted much study. His "Morning Glow" (No. 384) and "Reflection" (No. 382) are perfect imitations of a broad water-color sketch. W. E. Palmer's "On the Laguna" (No. 292) would be a perfect picture if the bridge did not cut through it in absolutely straight lines, but it is difficult to find picturesquely dilapidated bridges in this country. The sky and atmosphere in this print show the selective ability of a good photographer.

A frank and clear effect has been obtained by L. E. Rea in his view of "The Old Sonoma Road" (No. 303), by far the best composition of his four landscapes. J. H. Wilhelm's "Before Sundown" is too theatrical. M.

Moulin's "The Bohemian's Grove" could be made a picture only by being softened in an enlargement. A similar treatment would also benefit E. G. Zeile's well-composed photograph, "Lovers' Lane" (No. 244). In Mrs. A. G. McFarland's picture, "On the Alameda Marsh" (No. 104), the gray silhouette of the two heads against the luminous sky is very effective, while Mr. McFarland, in his "The Gentle Kine" (No. 176), has successfully disposed of the dangerously straight line formed by the stable roof. R. J. Waters has made a very interesting study of "A Horse's Head" (No. 173), in an oval, and his sheep study is full of good sunlight, though there is an evenness all through the picture that could have been avoided. His architectural picture deserves only praise. E. L. Wood's Mission studies are very satisfactory, and Mr. Stanley's "The Court—view of Capistrano" (No. 289) is also a well-chosen bit of architecture, marred only by a frame that seems to come from the confectioner's.

NEGATIVE BY OSCAR MAURER, SAN FRANCISCO.

"RAIN IN THE FACE."

Of the local workers who devote themselves almost entirely to portrait and figure studies, Miss Laura M. Adams exhibits the most original pictures. Her two portraits are good likenesses (the study of Mr. Aitken's head can hardly be called a portrait), without much pictorial interest, especially the striking resemblance of Arthur Mathews. But it is in her ideal conceptions that her work shows its greatest charm and is, in character, quite unlike anything else in the exhibition. It is pervaded by a fine poetic spirit, which, perhaps, not always realizes the limitations of the camera ("Sweets of Hell," No. 86), but which emphatically asserts itself in two of her pictures, "October" (No. 87) and "Peace on Earth" (No. 95). The hand of the woman in the latter is bad.

No greater contrast could be found to these studies than in R. H. Furman's plain, honest photography, which is satisfied to secure an accurate likeness, and certainly succeeds in that, especially in the photograph of Master Latimer. F. E. Monteverde's "An Indian Princess" (No. 103) is a very

interesting model with nothing Indian about her, while the two portraits (Nos. 97 and 99) do not rise above the ordinary. The "Chinese Fish Cleaner" (No. 96) is his best picture, showing a good appreciation of tone values.

Dr. H. D'Arcy Power, whose picture of "The Haunted Lake" (No. 307) will astonish those who are not up in photographic tricks, has an exceedingly good head of a girl, "Ursula" (No. 298), in sepia. His "Philosopher" (No.

NEGATIVE BY D. L. CUPPLES, SAN FRANCISCO. EVENTIDE.

300) is also a good, vigorous study. Mrs. A. Nelson Crowell is quite successful with her old men pictures, her photo of William Keith being one of the most picturesque likenesses I have seen of this fine artist. In her flower studies she shows great decorative feeling, a quality which I vaguely suspect in A. A. Martin, whose "Taxonia" (No. 312) I hope is not an accident. In C. H. Anderson's "Listening to the Fairies" (No. 248), a very elaborate imitation of a well-known painting, we must admire the great care by which the desired effect was finally produced. A. J. LeBreton's "Fruit Girl" (No. 78) is a good subject, well lighted, while his portrait of a girl (No. 80) would be really improved if the right sleeve were cut off. J. R. Moore's "Spanish Dancer" (No. 468) has nothing of the grace we expect in a Spanish dancing girl. Dr. Fletcher's "Resignation" (No. 70), a woman with a black veil, is well named. Of Miss Galloway's portraits, I like best the little head "Priscilla" (No. 365), in which she has had the opportunity of a charming model. F. C. Bangs gives us a very amusing picture of a crying baby (No. 73), and a rather pathetic "portrait" of a lion and his mate (No. 76) in a good frame.

PRIZE WINNING PICTURES AT THE SALON.

WITH REPRODUCTIONS OF THE PICTURES AWARDED THE "CAMERA CRAFT" MEDALS.

On Thursday, January 24th, the Jury of Award, Messrs. W. H. Lowden, L. P. Latimer and C. Chapel Judson, made the following announcement of their selections:

LANDSCAPES — *First*, No. 51, "The Passing Shower," by George C. Meeker of San Jose; *second*, No. 115, "Through the Mist," by Mrs. Myra Albert Wiggins of Salem, Or.

MARINE — *First*, No. 130, "Passing of the Storm," by W. J. Street of San Francisco; *second*, No. 285, "Coming Storm" (yacht Constellation, N. Y. Y. C. race), by H. H. Latimer of Boston, Mass.

GENRE — *First*, No. 57, "Zuni Women," by F. H. Maude of Los Angeles; *second*, No. 288, "Testing Fruit," by H. H. Latimer of Boston, Mass.

PORTRAITURE — *First*, No. 189, "Study; Head and Hand," by Dr. Arnold Genthe of San Francisco; *second*, No. 88, "Portrait of Arthur F. Mathews," by Laura M. Adams of San Francisco.

STILL LIFE — *First*, No. 126, "A Pair of Teal," by W. J. Street of San Francisco; *second*, No. 150, "Trillium," by Mrs. A. M. Crowell of San Francisco.

ANIMAL STUDIES — *First*, No. 316, "Rats," by T. H. d'Estrella of Berkeley; *second*, No. 255, "Seeing Things," by A. W. Rice of Haywards.

ARCHITECTURE AND INTERIORS — *First*, No. 168, "Arches, Stanford University," by R. J. Waters of San Francisco; *second*, No. 404, "Interior Congressional Library, Washington, D. C.," by H. E. Hoopes of Pasadena.

NEGATIVE BY LAURA M. ADAMS, SAN FRANCISCO.
PORTRAIT OF MR. MATHEWS.
Second Prize—Portraiture.

Early in the work the members of the jury confessed their inability to select from the pictures one which could be called the "Grand Prize Picture" of the salon. The great number of fine things shown made this task a hard one upon the jury, and CAMERA CRAFT therefore suggested that the Grand Prize Medal go to the photographer making the best individual display. The suggestion was accepted by the jury and the gold medal was awarded to Arnold Genthe of San Francisco.

In this issue CAMERA CRAFT presents all of the prize winners, with two exceptions. Ill luck in photographic reproductions is responsible for the omission of these two.

NEGATIVE BY GEO. C. MEEKER, SAN JOSE.

THE PASSING SHOWER.
First Prize—Landscape.

NEGATIVE BY MRS. MYRA ALBERT WIGGINS, SALEM, OR.

THROUGH THE MIST.
Second Prize—Landscape.

NEGATIVE BY H. H. LATIMER, BOSTON.

COMING STORM (YACHT CONSTELLATION, N. Y. Y. C. RACE).
Second Prize—Marine.

NEGATIVE BY F. H. MAUDE, LOS ANGELES.

ZUNI WOMEN.
First Prize—Genre.

NEGATIVE BY H. H. LATIMER BOSTON.

TESTING FRUIT.

Second Prize—Genre.

NEGATIVE BY W. J. STREET, SAN FRANCISCO.

A PAIR OF TEAL.

First Prize—Still Life.

NEGATIVE BY R. J. WATERS, SAN FRANCISCO.

ARCHES, STANFORD UNIVERSITY.

First Prize—Architecture.

NEGATIVE BY W. J. STREET, SAN FRANCISCO.

THE PASSING STORM.

First Prize—Marine.

CAMERA CRAFT

ISSUED MONTHLY BY

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VOL. II. SAN FRANCISCO, CALIFORNIA, FEBRUARY, 1901. NO. 4.

The Publishers desire to serve notice on the press, photographic and otherwise, that prosecution will follow the reproduction of articles from this magazine without proper credit. However strong the desire on the part of the Publishers to disseminate information of value to the photographers of the world, the individual claims of this magazine deserve some consideration. Within the past several months articles have been reproduced from this magazine without credit being given either to the publication or the author. Mr. Theodore Kytka and Dr. H. D'Arcy Power, two of the best known photographic writers of the West, have suffered from this treatment in the past and it is the intention of the Publishers to protect them in the future.

TO "WHOM HONOR IS DUE"

In summing up the success of the First San Francisco Photographic Salon, CAMERA CRAFT feels it a duty in behalf of the California Camera Club, of which it is the official organ, to thank the officers of the San Francisco Art Association for the support given the club in its efforts to make the salon a success. The various committees have worked hand in hand, and it is doubtful if an enterprise of such magnitude was ever before carried to a successful culmination with so little friction.

Especial praise is due to the Committee on Selection and Hanging for the artistic arrangement of the walls. The difficulty of placing so many small pictures on such a large wall-space in harmonious lines was a work of no small proportions, and the committee has just cause for pride.

To Mr. Robert H. Fletcher, Curator of the Institute, is also due a full measure of praise. His painstaking care and large experience made him of

extreme value to all of the committees, and his services were always in demand.

In full keeping with the work of the other committees was the work of the Committee on Publicity. Through the efforts of this committee the press of the city was stirred into action, and as a result nearly two hundred columns of space were devoted to the exhibition. The triumph of this committee, however, was in the production of one of the finest art catalogues ever published in the West. The demand for the catalogue was so great that before the end of the first week a second edition was rendered necessary.

SALON SURPRISES

From an artistic standpoint, the salon was a surprise. From every corner of the West sprang photographers, whose work, strong, vigorous and full of life, stood in a class by itself, excelling in every way the work of the Eastern men—photographers whose very names were unknown to the workers of the State. The extreme liberality shown by the Committee on Selection permitted of a better comparison of the work than if a rigid line had been established and only the best work admitted.

The effect of the salon upon the work of the photographers will be great, and the next salon will undoubtedly show a marked improvement over the first.

THE SOCIAL FEATURES

If a single doubt remained in the minds of those who have in the past hesitated to call photography one of the fine arts, it would have been dispelled on the closing night of the salon. Never before had such a gathering of distinguished Californians attended an art exhibition on the Pacific Coast, and no better indication of the popularity of the photographic art could have been given than this attendance at the close of the First Photographic Salon.

From the time the salon opened until it closed the attendance was record-breaking. Never within the memory of the oldest attache of the Art Association was there such interest displayed in an exhibition. Thus, viewed from the standpoint of popular favor, the salon was a magnificent success, and will in the future be one of the social features of the year.

NEGATIVE BY LAURA M. ADAMS, SAN FRANCISCO

OCTOBER.

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

AMERICAN JOURNALS.

Photo-American—Mr. McBean Johnstone writes on "Figures in Landscape," and the chapter is an excellent one. Dr. S. B. Hendricksen writes some useful notes on carbon printing, and gives in greater detail an account of his method of reducing overprinted carbons with a solution of chloride of lime. (*Vide* CAMERA CRAFT, December, 1900.) H. D. Gower has a practical paper on "Backgrounds and Their Uses." To the users of films, Sir William Abney's notes on the way of developing them will be of value.

The St. Louis and Canadian Photographer—The best article in the January number is by Mr. H. McBean Johnstone, on "The Rendering of Distance," concerning which, among other good things, he says: "In order to make the most of the depth of focus of the lens, the most distant objects that are desired to be sharp should first be got into focus without any diaphragm. Then put in the stop chosen and note the point nearer than the one first taken where absolute sharpness ceases. Then take out the stop and focus this latter point; then re-insert the stop, and the operation is finished." G. Hammer Croughton, in an article on the contending schools, deprecates the statement that "photographers, through the journals and conventions, are getting too much of art," and he emphasizes his point by a criticism of many of the professional photographs published in the December number of the journal under review. It is unfortunately true that he could have found quite as much material for condemnation in the present issue.

Anthony's Photographic Bulletin reproduces a paper by Eva L. Watson on "Photography" (*i. e.* as an art), read before the Philadelphia Photographic Society, which is good reading. The number is in great part made up of abstracts and translations, among the most important of which are the following: "Fatty Gelatine," by Dr. E. Vogel; "The Evolution of Modern Lenses," by T. R. Dallmeyer, and "The Uranium Salts in Printing," by Florence. The latter should be of great interest to amateurs.

The Photo-Beacon appears in a new dress with the new year, but otherwise follows on the old lines, practical formulæ and the making of apparatus occupying most of the space. There are, however, two papers that well repay the reader, namely, the introductory chapter of a series of articles on "Portrait Posing and Lighting," by J. H. Vanderpoel, and the reproduction from "Photography" of Professor Namias' article on the "Photographic Uses of Potassium Permanganate." Louis H. Hoyt commences a series of articles on "Photographic Printing Processes" that promises to be good.

The Professional and Amateur Photographer—S. L. Stein writes on the copyright question, in which he makes a strong plea for concerted action, and advises all to immediately join the league by writing to C. E. Bolles, 224 Fulton Street, Brooklyn, N. Y. How important the matter is can be judged by the following excerpt from a letter written by Mr. Elliot, founder of the British Photographic Copyright Union, who, speaking of the English union, says:

> We met great opposition from the press the first years of its existence, but by continuous fighting and winning some good actions we meet now with no serious opposition. Whenever a newspaper or magazine proprietor or other person wishes to reproduce a copyright photograph, he first applies to the photographer for permission to do so, and pays a minimum fee of half a guinea; if to be reproduced large size, or if it be an important subject, he pays from one guinea to ten guineas for the privilege, though 10s. 6d. is the usual fee.
>
> The following figures will show you that I have done exceptionally well the first half year with copyright fees:
>
> | | | |
> |---|---|---|
> | January, 1900 | | £ 294 |
> | February | " | 276 |
> | March | " | 502 |
> | April | " | 289 |
> | May | " | 360 |
> | June | " | 283 |
> | | | £2004 |

Ten thousand dollars for six months royalties is a possibility worth fighting for.

A most important paper to gum bichromate workers is that of Dr. C. W. Miller, which describes a new method of working with partially insolubleized gum, which enables the paper to be coated at any period prior to its being sensitized.

The Photographic Times appears in its new form, and seems to have lost nothing by the change. Professor F. E. Nipher contributes a paper on the zero plate, but adds little to what has already been referred to in these columns. Dr. R. W. Schufeldt has a suggestive paper on the "Study of the Human Form," illustrated by some good studies. Last January the *Photographic Times* offered a series of prizes for illustrations to three works of fiction. They now say that "a very large number were sent in, but, with one exception, they were of little value for illustrative purposes." We are glad to find that the "one exception" was a Californian, Mr. E. R. Jackson of Oakland, who obtained the first prize of $100.

FOREIGN JOURNALS.

Der Amateur Photograph, German—Max Ferrars, has an illustrated article on the "Value of Mist in Photography," which, he points out, not only gives to a photograph the too often lacking aerial perspective, but also in pictures taken in cities, softens and blends the unpleasant effect of our industrial surroundings.

P. H. gives a method of making a substitute for ground-glass that sounds very promising. It is as follows: Place ordinary gelatine in milk until it is thoroughly softened, then remove it, and melt at a low temperature; coat therewith a sheet of glass, and allow to set and dry. The discoverer claims for it a fineness of texture that has heretofore never been produced. An editorial on the D'Arcy-Power Carbon Method, referring to prints on polished celluloid, says that had it been discovered ten years ago, when glazed surfaces were in vogue, it would have driven all competitors from the field, but says the editor: "So very promising is this method that in spite of fashion it will be used for many purposes, especially for museum pictures."

British Journal of Photography—A short note by H. Hands on "Permanganate of Potash as a Reducer" is of interest. (In a past number we gave the formula for this method.) The writer asserts that if the solution be applied to a plate before it has been dried, the reducing action will equally affect high light and shadows, but if it be first dried the action of the reducer will be first and chiefly on the high lights. He suggests that in contrasty negatives where this is desirable, a maximum effect may be obtained by flowing the dry plate with a strong solution, rapidly washing and drying, and repeating the process until the desired effect is obtained.

Le Photogramme—The leading paper of the December issue is a resume of the discoveries in flashlight powders and the serious accidents that have accompanied them, by Chas. Gravier. H. D. Osmond writes on the development of flashlight negatives, and insists on the importance of using a very weak developer, his preference being for the following formula:

Hot water	900 grains
Metol	2 grains
Sulphite of soda, desiccated	40 grains
Hydrochinon	6 grains
Carbonate of soda	100 grains
Ferrocyanide of potash	8 grains
Potassium bromide, ten per cent solution	30 drops

For use take one part, and add three parts of water.

If the negative be too flat, build it up in a strong developer, to which potassium bromide has been added.

Photographische Mittellungen — Fritz Loescher has an excellent article on the making of enlarged negatives, in which he maintains the desirability of always making first an enlarged transparency in the camera, from which the enlarged negative is made by contact. Secondly, he says that to obtain good results the plates, both for transparency and final negative, must be carefully backed. On theoretical grounds alone this is manifestly true.

ANNUALS.

Of the various annuals that we have examined this year, two, and they in size the smallest, are noteworthy for their value to the advanced worker. It sometimes appears as though the journals and annuals were in large part written for baby photographers of less than a year's growth or their undeveloped equivalents. Wilson's *Photographic Mosaics* and Liesegang's *Photographic Yahrbuch* are practically without pap of this kind, but there are some capital papers for those who have learned to read.

Photograms, 1901, London, England—One cannot obtain a better comprehension of the year's photographic art work than is afforded by a study of the wealth of excellent illustrations that make up the mass of this book. The text is for the most part critical, and all schools and methods receive sane and impartial criticism. Naturally the work of the American school receives no little attention.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY FAYETTE J. CLUTE.

NOTES ON EXPOSURE

Make notes concerning your exposures and the conditions under which they were made, particularly if at all unusual. This is important. I had the fact brought home to me very forcibly a few weeks ago. I was called upon very suddenly to make a flashlight of a gathering in a certain hall the same evening. ("The ones I had made three years ago were such good pictures.") Here was a case where I could not afford to make a failure. I could not remember how much powder I had used, what stop, not even what lens. I hunted up an old notebook and found a complete record: One-half ounce luxo, Goerz lens, stop *f* 16, Cramer Crown plate, negative No. B 87, fully timed, fine negative, normal developer. You can imagine the relief I felt on finding this. Even had the gathering been in another hall, this record would have been of value as a basis upon which to work.

SULPHITE OF SODA

It is not quite as generally understood as it should be, that the amount of sulphite of soda employed in any given developer formula should be governed by the amount of dilution and not by the quantity of any of the chemicals used. For this reason some of our later formulæ, in which the sulphite is kept in a separate solution, are a step in advance.

With our old friend pyro, for instance, we dilute the developer for an under-exposed plate. Prolonged development and a lack of sulphite give us yellow-tinted negatives. Contrasts are increased by the yellow stain, and we have lost the advantage we had hoped to gain by slow development in a dilute developer. Our over-exposed negatives come up clear and free from stain and print with even less contrast than the negative would indicate, simply because it lacks that slight amber tinge we look for in a pyro negative.

LANDSCAPE WORK

Did you ever stop to think that there were two classes of landscapes that were best suited to two particular atmospheric conditions? Your landscape with a distance that is devoid of interest, or with one that is in conflict with the foreground, as a rule has a strong foreground; in fact, the whole interest centers there. It is the foreground which gives it its charm. It composes well, line and balance are good, but the distance spoils it all. Go to the place on a hazy day, use a fairly large stop, and see if the results do not please you. Hunt up small bits with a good, strong foreground; let the distance be as atmospheric as possible, and you will make pictures that could not be made on a bright, clear day.

In another landscape the charm lies in the distance and middle distance. A clear, bright day is what is wanted here. A low tripod will foreshorten the foreground; a small stop will give us depth, and results will follow that would be impossible if there should be the least suspicion of haze in the atmosphere.

MISLEADING ADVICE

The greatest, perhaps the only, annoying feature connected with the work of trying to help the beginner by correspondence is the persistency with which he comes back with the argument that he has read so-and-so concerning some point in question. The directions quoted are, as a rule, reliable enough, but only in a general way.

Only recently I advised one of my correspondents to increase the alkali in his metol developer to obtain more density. Did he spend a few minutes and waste a small plate trying it? No; he writes me a long letter citing various authorities to show that one should increase the reducing agent in order to gain density and contrast. This advice held good before metol was used, and, I believe, still does so with all other developers. You often see a formula calling for boiling water, so many ounces, sulphite of soda, so many more. Ask your druggist what would be the effect of pouring boiling water on sulphite of soda. Will it be a solution of sulphite or not? Another bit of advice often published is to dissolve your bottle of sulphite of soda in a given quantity of water and keep it in solution, as it will not deteriorate and turn to sulphate, as it does

when exposed to the air. Use some of this solution in an amidol developer after it has been kept for some time, and see if it does not deteriorate.

Filter your developer is another poor piece of advice. Filter your stock solution of hydroquinone, particularly if it is well concentrated and the solution rather cold. After you get done soak the filter in a little warm alkali solution, and see if it will not be strong enough to develop a few plates. It will, at least, give you an idea of what you have filtered out of your developer. I could fill the rest of my space with just such examples, but these should be enough to emphasize the fact that all photographic advice is not the condensed wisdom that one might believe.

UNSATISFACTORY NEGATIVES

Destroy all unsatisfactory negatives. Mine go directly into a solution of sulphuric acid and bichromate of potassium and come out clear, sparkling glass. I use them later to make wet-plate transpariencies on, but the main point is, I am not tempted to waste good paper and valuable time printing from them, "just to see what they print like," and I am not showing these prints to others with excuses for their shortcomings. I admit making failures, but I do not force the fact upon the attention of everyone who chances to inspect a few of my prints.

One of my amateur friends has a reputation that any of us might envy, and he has made it by simply following this plan, except that he breaks them. His truthful reply to all inquiries regarding any particular exposure has, perhaps, led some of his friends to wonder why he did not use some brand of plates coated on a less brittle kind of glass; but the superiority of such as do come through unbroken seems to justify him in his choice of that particular make.

A VIEW METER

When you wish to do an extra good piece of work on a landscape or other view, visit the place first without a camera and make careful notes as to the best time of day and most advantageous position.

A piece of blue glass, say 3¼ x 4¼ inches, for a 6½ x 8½ camera, if held at a distance from the eyes of one-half the focal length of your lens, will act as a finder, assist you in judging of the results to be obtained by reducing all colors to monochrome, and will indicate the distance at which your 6½ x 8½ camera must be set up when using a lens the focal length of which is twice the distance at which you hold the piece of blue glass from your eye. A 4 x 5 piece of blue glass is right for an 8 x 10 camera, and so on.

QUICK FOCUSING

If you are using a stand camera, take it out in the yard some day and, using your largest stop, focus at objects at various distances and make scratches on the bed where the front comes for these different distances. A neater job can be done by gluing on a piece of letter paper, making the marks and figures in ink and giving it a coat of varnish when done.

I do not advise the use of a scale for focusing, but we have all missed opportunities where the few seconds required to adjust the focus by means of the ground glass would have permitted us to have secured a good composition. On a country road, the farm wagon or drove of cattle that come along just a few seconds too soon, and in other places other objects, are a constant reminder of the advantage of such a scale.

VENTILATING THE DARKROOM

If you are using a closet or other small room as a darkroom, make some provision for a circulation of air. Perhaps you are in a rented house and do not wish to cut holes in the door or deface the walls to the extent of inserting a window, so as to place your light outside the room An hour or so spent in company with the ordinary ruby lamp in a small, unventilated room, leaves you feeling depressed and worn out, if not really suffering.

I found a friend, a short time ago, using a small closet hardly large enough to turn around in. He had bored two holes through the plastering into the side wall of the house, one near the top of the closet and the other near the floor. The ventilation was perfect. He had expected to find it necessary to make an opening between the same two joists on the outside of the building, near the ground, but found it was not required. No light traps were needed, and five cents' worth of plaster of paris would make all whole at any moment.

FLASHLIGHT WORK

The trouble with most of the published advice concerning flashlight photography is the small amount of powder advised. You are pretty safe in doubling the quantity. Did you ever see an over-exposed flashlight picture I know that I have seen very few. I have made a good many

flashlight exposures, always been generous with the powder, and have only one negative that could be called over-exposed. This one is only slightly overtimed. The negative prints fine on Velox, and for bromide enlarging is all that could be desired. Use plenty of powder; it is as cheap as wasting good plates, and your results will be more satisfactory.

PHOTOGRAPHERS' TRICKS

A space writer on the lay press has rehashed the old story about the skull and crossbones on the forehead of the sitter, invisible to the eye, but sharply defined in the negative. This time it is a Philadelphia photographer and a student who is taking a course in chemistry. "The trick simply consisted of painting on the forehead the grim design with a solution of bisulphate of quinine. This is invisible to the eye, but shows pure white to the camera."

ANSWERS TO QUERIES

I am pleased to find that my invitation extended to all readers of CAMERA CRAFT to write me concerning their troubles photographic has resulted in quite a satisfactory amount of mail matter. Nearly all have been answered by mail, as pictures from and matters concerning the salon will crowd this department this month.

SCRATCHED NEGATIVES

In answer to the correspondent who has several valuable negatives scratched on the glass side: Clean them out very carefully and then fill them with Canada balsam, thinned with a little benzole. As soon as dry, scrape off all surplus balsam on the surface of the glass, and the negative will print without a sign of the scratch showing on the print.

TITLES

Did you ever try using a bit of poetry as a title to your landscape pictures? Take these few lines of Whittier's, for instance.

> The summer warmth has left the sky,
> The summer songs have died away;
> And withered, in the footpaths lie
> The fallen leaves, but yesterday
> With ruby and with topaz gay.

Whittier's works abound in just such bits. Verses in the magazines often contain word pictures that will assist your own pictures in conveying the idea you have sought to portray. Jot down any bit you may come across and you will soon have a supply large enough to minimize the danger of being incongruous. This last is a serious fault and should be carefully guarded against in using quotations as titles. That it can be overdone there is no question, but it is, at least, a relief from the "This is a cow" style of titles so often met with.

THE PROFESSIONAL.

CONDUCTED BY O. V. LANGE.

THE USE OF OPAQUE IN THE PRINTING ROOM

I have noticed that this handy article is not used nearly so much as it should be by the amateur or the professional photographer. The article I refer to more especially is Gihon's Opaque. It comes in hard, reddish brown cakes, and will last for years, as a very little goes a long way. It is understood that this is to be used only in extreme cases, where a negative which would otherwise have to be thrown in the ash barrel can be materially benefited by it. There is an old saying that accidents may sometimes happen in the best regulated families. Even the great and good photographic family does not seem to be exempt, as the following incident will show:

Some time ago a valuable geological negative, belonging to a panorama set of six and taking in a portion of the crest of the high Sierras, was brought to me. To all appearances it was irreparably ruined by having had a blue print paper placed upon it while yet quite damp, and exposed to the sun. Fortunately, the mistake was discovered in time, so that the paper could yet be peeled from the moist film.

The upper picture in accompanying halftone is from a Solio print of the negative after the blue print had been peeled off. As will be seen, the sky, mountain and foreground are all more or less damaged. Yet, strange to say, by carefully inspecting the negative with a magnifying glass the outlines of the mountains could just be made out, and by having the negatives that belong to the set, the one showing the right side of the mountain and the other the left, each one overlapping considerably, so that the

original outline could be accurately restored by carefully applying, with a fine camel's-hair brush, some opaque. It was moistened with water and had about the consistency of cream, so that it would cover well and be dense enough not to let the light through.

The negative should be held upside down, so that the point of the brush and the outline may be seen at the same time, thus readily obtaining a clear tracing.

If the brush should take some of the opaque over the outline, it may be removed by having a clean brush ready, slightly dampened, and working backward until the original line is visible again. After having painted around the edge for about a quarter of an inch along the whole of the top of the mountain, a much larger brush is then used to fill in all of the sky. This must be put on rather thick, so that, by holding it up to the sun, no light can be seen. A perfectly blank and white sky without expression to it is now the result. This is, however, an unpardonable defect from an artistic point of view. Therefore, the problem is not entirely solved as far as the sky is concerned. To give this the proper gradations of tone values, such as we see in a correctly exposed and developed plate, it is necessary to carefully blend the sky, as will be seen in the second print. The right-hand upper corner is considerably darker and gradually clears up toward the left, where it remains quite light, thus giving a feeling of atmosphere which it did not have before. This is very easily accomplished by exposing the partly finished print to diffused daylight and slowly moving back and forth a piece of thick paper, keeping all of the lower part covered, and that portion most which we want lightest in the sky. By this simple means any kind of an effect can be blended that suits our fancy.

THE SPOILED NEGATIVE.

A PRINT FROM SAME NEGATIVE AFTER BEING TREATED.

The right-hand side and foreground was brought out by carefully redrawing the tree trunks that were invisible in the finished print, but could be seen in the negative. This was done by strengthening them enough with a sharp lead pencil, and detail in the foreground by a little crimson lake, being careful to keep the general tonality in harmony with the other negatives, so that they would all print and look alike.

Thus the spoiled negative was made serviceable, while the other five negatives of the panorama, which would have been useless, were saved. This is only one of the many instances where this handy paint becomes valuable.

Liesegang's Photographic Almanac is a little book of one hundred and twenty pages, the size of the *Photo Miniature*, but, nevertheless, containing more solid matter than many of our more pretentious annuals. Dr. G. Platner has an essay on "Photo-Chemistry" from the standpoint of Maxwell's theory. G. von Bernkopt shows that it is possible to obtain stereoscopic effects from pictures taken with lenses of different foci. Professor Valenta describes and gives formula for the preparation of phosphate of silver collodium paper. J. Gaedicke describes experiments on the durability of toned bromides, from which it appears that both those toned with iron and those with uranium lose their color in sunlight but regain it in the dark, but that the regained tone is not equal to the original. R. E. Liesegang writes of a set of experiments made to determine the practicability of making up in bulk for future use the pigment coating material for gum print.

THE DEMONSTRATOR.

CONDUCTED BY FREDERICK I. MONSEN.

PACIFIC PLATE FORMULAS.

The following formulas have been furnished as being particularly adapted to the Pacific Plate.

BY MR. G. W. HARRIS.

NO. 1.

Water	32 ounces
Metol	1 ounce
Pyro	½ ounce
Sulphite soda solution 65° hydrometer test (about 11 ounces crystals)	48 ounces

NO. 2.

Solution carbonate potass 30° hydrometer test.

For use take:

No. 1	1 ounce
No. 2	1 ounce
Water	6 ounces

BY MR. J. T. BERTRAND.

NO. 1.

Water	32 ounces
Metol	60 grains
Hydrochinon	60 grains
Sulphite soda crystals	2 ounces

NO. 2.

Carbonate potass	2 ounces
Water	32 ounces

For use take equal parts of each.

Should this developer produce negatives of too great contrast reduce the amount of hydrochinon in solution No. 1.

ORTOL DEVELOPER.

NO.

Water	32 ounces
Meta-bisulphite potass	113 grains
Ortol	218 grains

NO. 2.

Water	32 ounces
Sulphite soda crystals	5½ ounces
Carbonate potass	1¾ ounces
Bromide potass	5 grains
Hyposulphite soda	3 grains

For use:

No. 1	1 ounce
No. 2	1 ounce
Water	1 ounce

TOLIDOL DEVELOPER.

Water	16 ounces
Tolidol	24 grains
Sulphite soda crystals	144 grains
Carbonate soda crystals	240 grains

Ready for use in above proportions.

Following is a tolidol developer to produce very strong negatives:

Water	16 ounces
Tolidol	65 grains
Sulphite soda crystals	160 grains
Carbonate soda crystals	300 grains

EIKONOGEN HYDROCHINON.

NO. 1.

Water	80 ounces
Sulphite soda crystals	2 ounces
Eikonogen	1 ounce
Hydrochinon	120 grains

NO. 2.

Water	80 ounces
Carbonate potass	1 ounce

For use:

No. 1	4 ounces
No. 2	1 ounce

ACID FIXING BATH.

Water	1 gallon
Hypo	26 ounces
Common alum	½ ounce
Acetic acid	3 ounces

Made as above the bath will be milky, but after one or two plates have been fixed will clear, after which clear portion only should be used.

FOG

Nearly all developers will cause fog if used without a restrainer. A very satisfactory test can be made by developing an unexposed plate for at least fifteen or twenty minutes and then fixing it in a fresh hypo bath. This must be done in perfect darkness, so that you will know that any fog visible is either inherent in the plate or due to the developer used. Of course, for this test the reagent must be used without the addition of a restrainer, and then the bromide added drop by drop until the developer works clear and without veil. Such developers as hydrochinon, ortol and glycine work clear with the addition of a very few drops of restrainer, while pyro-metol, rodinal and tolidol require a much larger quantity to work free from fog or veil. Adurol is, probably, the only exception, giving less fog than any other developer I have tried, but this is most probably due to the fact that some kind of a restrainer, equivalent to a bromide, is used in the composition which has the desired effect.

ARTISTIC FRAMING.

That artistic framing adds considerably to the appearance of photographs will be readily acknowledged by any visitor to the recent Photographic Salon at the Mark Hopkins Institute. Many of the pictures exhibited were framed by Kennedy & Rabjohn, 21 Post Street, San Francisco. This firm is well known for the artistic manner in which they frame photographs, having a large assortment of new mouldings always in stock. —(*Adv.*)

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The one hundred and twenty-eighth illustrated lecture, given on January 25th at Metropolitan Temple, was one of the most enjoyable for many months. The title of the lecture was "Fincas and Fincheras of Soconusco, Mexico," and the lecturer, Mrs. Frona Wait Colburn, handled her subject in a most pleasing style.

The proposed snow outing to Shasta has been indefinitely postponed. It rained.

The Camera Club nights at the salon attracted many of the members who have not appeared at the club gatherings for months. Old acquaintances were renewed, new friends found, and altogether the salon did much to increase the social life of the club.

SAN DIEGO CLUB.

The members of the San Diego Camera Club were hosts to one hundred and fifty invited guests at their lantern slide exhibition Friday evening, January 11th. The reception-room decorations were in peppers and palms, with smilax and carnations on the chandeliers and mantel. Sets of slides furnished by the clubs in Sweden, San Francisco, Lancaster, Pa., and Grand Junction, Colo., were thrown on the screen. The beauty of some of the landscapes and marines, as well as the charm of the figure studies, brought forth applause from the audience. The snow scenes from Pennsylvania were especially admired. After the lantern slides, punch was served by the young ladies of the club.

The Columbia City (Or.) Camera Club was organized on January 9th, with a large membership roll. The following officers were elected: President, Mr. W. E. Rapson; vice-president, Mrs. A. R. Keddell; secretary, Mr. Frank Brown; treasurer, Miss Clara Wallick. The following committees were appointed by the president: Clubrooms, Miss Williams, Miss Anna Kelso, Miss Mabel Heston; program, Miss Julietta Carrington, Mrs. W. E. Rapson, Miss Pearl Groat; exhibition, Miss Myr Keddell; printing, Mr. Frank Brown, Miss Williams, Miss Wallick.

LOS ANGELES CLUB.

One of the most enjoyable, as well as instructive, meetings of the Los Angeles Camera Club, was held on January 11th.

Mr. F. H. Maude, the first president of the club, before its formal organization, read an entertaining paper on "Photography in the Grand Canyon," beautifully illustrated by his own lantern slides. He dwelt upon the many difficulties attendant upon picture-making in that wonderful spot, both those encountered in traveling over the rough country with photographic apparatus and the unusual clearness and brilliancy of the atmosphere, which leads to over-exposure in so many instances. He explained the necessity for and use of Orthochromatic plates and a color screen, and showed some exquisite cloud effects as well as beautiful rendering of the wonderful rich formations.

Mr. A. S. C. Forbes gave a ten-minute talk on "Fakes and Freaks in Photography," which called forth much laughter and applause. Mr. Forbes' talk was illustrated by some remarkable freaks which, after being duly wondered at and commented upon, were explained by him to the interested audience.

On January 13th a very successful outing was enjoyed at "Devil's Gate" and Canyon. The trip was made by tally-ho, buggies, train and awheel. The little stream flowing through the canyon had to be crossed and re-crossed many times during the day, and as the stepping-stones were far apart and slippery and the water deep in places, many humorous accidents and opportunities for funny snapshots resulted. All escaped, however, with nothing worse than slight duckings and good-natured ridicule. Such a good time was had that another outing of similar character is planned for early in February.

A social meeting was held at the clubrooms on the eighteenth, when the second set of Interchange lantern slides was shown, music and recitations given, and a general good time had. The capacity of the assembly hall was taxed to its limit. Seats were at a premium early in the evening, and before the entertainment was at an end no standing room was left in the hall.

NOTES.

According to the Los Angeles *Times*, the Coroner of that city had an itching to become an amateur photographer, and forthwith addressed the following petition to the city solons:

"*To the Honorable Board of Supervisors of Los Angeles County*—GENTLEMEN: I have the honor to ask your honorable body to authorize the purchase of a camera and supplies, and any necessary expense in developing, until such time that the Coroner or his clerk may be experienced sufficient to do the work, for the procurement of photographs of unidentified deceased persons."

After stating that the Coroner's request was turned down hard, the *Times* continues:

"Anything else the Coroner wants he will please ask for! Will it be an automobile or a balloon?"

This action on the part of a great newspaper is to be regretted. Why should the laudable desire of the Coroner to perpetuate the likenesses of deceased Los Angeles citizens be interfered with? Is it possible that the newspaper man entertains a fear which he does not care to express?

Arthur W. Rice of Haywards, who has a wide reputation as a photographer of animals, left for Honolulu recently, where he has important contracts, including government work.

The following property was stolen from the studio of W. A. Foster, Fresno, Cal., on the night of January 15th: No. 3 Darlot hemispherical lens, No. 6750. One 8x10 Rochester view-box and a three-inch low shutter. Should this be offered for sale hold and inform Mr. Foster.

H. R. Fitch of San Diego has returned from a nine months' absence in the City of Mexico in the practice of his profession, and has resumed business at his studio.

Mr. S. H. Mora, general manager of the Eastman Kodak Company, spent several days in San Francisco recently.

The Dixie Camera Company, 102 Nayer Street, Atlanta, Ga., has just issued a small folder which, for taste and novelty, excels much of the advertising matter reaching the CAMERA CRAFT office. It has a bunch of darkeys on the cover which alone makes it worth while to send a postal for it.

Whether you want to buy a Kodak or have some printing done it will be well to see

GOLDSMITH BROS.

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Directions for transferring photographs to watch-caps, glass, etc., 25 cents. I paid $5.00 for secret. Simple, pleasurable, profitable. F. E. Moynahan, publisher *Mirror*, Danvers, Mass.

$250 will buy an old established gallery, well furnished, in good locality. Rent reasonable; water free. Apply for particulars at 2212 Mission Street, bet. 18th and 19th Sts., San Francisco, Cal.

For Sale—A newly furnished photographic gallery in San Francisco. Cause of selling, parties desiring to leave the city. Can be purchased at a very low price. Address, C. P., CAMERA CRAFT office.

For Sale—Gallery fitted to 14-17 complete. Best location in Oakland. Will be sold very cheap, as owner desires to leave on account of sickness. Either all cash or part. Rent, low. Address, C. D. F., CAMERA CRAFT.

$350 Cash—Will buy a modern, well-furnished Studio in the Mission, San Francisco; $650 worth of apparatus and furniture in sight. For particulars address L. D. Hicks, 220 Sutter Street.

I will rent the use of my gallery, containing elegant skylight, furnished complete, with dark-room and printing-room to amatuer or specialist. Reasonable terms and good location. A. B. C., CAMERA CRAFT.

For Sale—$22.50—Stereo Lenses 5x7. Matched pair Victor Rapid Rectilinear lenses with Bausch and Lomb Dia. Stereo Shutters and camera division new and perfect. CHARLES WIEDNER, 36 Geary St., San Francisco.

A GOOD EXCHANGE MEDIUM FOR AMATEURS.

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NOTE:—Subscribers who do not receive CAMERA CRAFT promptly will confer a favor by sending a postal card to this office. The omission will be supplied and an investigation made. The editors will, at all times, be ready to carefully consider manuscript and photographs. When possible, all manuscript should be typewritten.

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MAGDALEN.

PRINT FROM THE NEW YORK CAMERA CLUB EXHIBIT AT THE CALIFORNIA CAMERA CLUB.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, MARCH, 1901. NO. 5.

The First ROGUES GALLERY In the World

By Theodore Kytka.

As I gaze on two old daguerrotypes before me, showing the harbor of San Francisco in the year 1852, literally covered with masts flying the flags of every nation, and depicting at the same time the busy life of early days, I cannot help being impressed by the many picturesque groups expressing the attributes of the typical adventurer. In my mind's eye I see, coming down the old San Jose road toward Mission Dolores, countless immigrant trains, making their way slowly toward the North Beach district, their attendants swelling the already overcrowded tents and hastily constructed shanties.

It is only natural to suppose that, under the conditions then existing, the populace of Verba Buena was cosmopolitan in its aspect, and that, while the great majority of gold-seekers and adventurers were bent upon obtaining gold by honest toil, there were many who preyed like vultures upon the richly laden miners returning from the diggings. Cheating at cards, robbery and murder were common methods adopted to separate the gold-digger from his glittering gold dust.

About this time the penal colonies of Australia contributed, to an enormous extent, to the criminal element of San Francisco. These particular

exiles received the soubriquet of "Sydney Ducks." China was well represented with "Highbinder Tongs" and coolies. Mexico's picturesque gamblers and cutthroats were liberally sprinkled in the gambling dens, where human life was counted cheap. The spirit of adventure and the desire to make a fortune in one day, by striking a bonanza or with the turn of a card, was the one absorbing ambition in San Francisco, and these were the times when a handful of patrolmen endeavored to uphold the dignity of the law and preserve peace.

On the official list of police officers of the city of San Francisco in the year 1853 I find the name of Isaiah W. Lees, patrolman; former occupation, coppersmith; born on the twenty-fifth day of November, 1830, in Lancashire, England; promoted to the rank of captain December 5, 1854. As the Captain of Police it was his duty to keep a watchful eye upon the would-be law-breakers and old offenders, and to keep his patrolmen acquainted with the methods of criminals, and also furnish close descriptions of the criminals themselves. The Captain realized, nevertheless, that any description of an ex-convict or suspect, however minute, was unreliable and insufficient for future identification, as compared with the photographic reproduction of the felon's features. Making the acquaintance of a daguerrotype photographer who had been attracted from the far East by the gold fever, Captain Lees completed arrangements whereby the artist was to make daguerrotypes for five dollars apiece of all suspected or convicted felons. Large as this sum seems for one picture, the photographer fully earned his pay, as the criminals strongly objected then, as they do today, to having their pictures taken. They would distort their features in horrible fashion and do everything in their power to defeat the camera. At times it took many hands to hold the criminal quietly before the camera, and many silver-coated copper-plates were spoiled, due to the long exposure necessary for the production of a daguerrotype.

EX CHIEF OF POLICE LEES, WHO STARTED THE FIRST ROGUES' GALLERY IN THE WORLD.

At that time the city did not provide the Police Department for such expenditures, so that Captain Lees was obliged to draw on his private funds for the payment of these daguerrotypes. The pictures thus obtained were kept on exhibition in the Captain's office, so that the patrolmen might familiarize themselves with the features of the rogues, and watch their actions and movements upon their release from the State Prison, which at this time was the brig *Euphemia*, converted into a prison ship.

Thus was started in San Francisco the first Rogues' Gallery in the world!

Assuming that the daguerrotype artists in New York, such as Professor Draper and others, had reached a degree of perfection in the production of these pictures about the year 1842, this first Rogues' Gallery was started just ten years later. Examining the collection of framed daguerrotypes of criminals in the possession of Captain Lees, I find them, in spite of much handling and use, in a first-class condition.

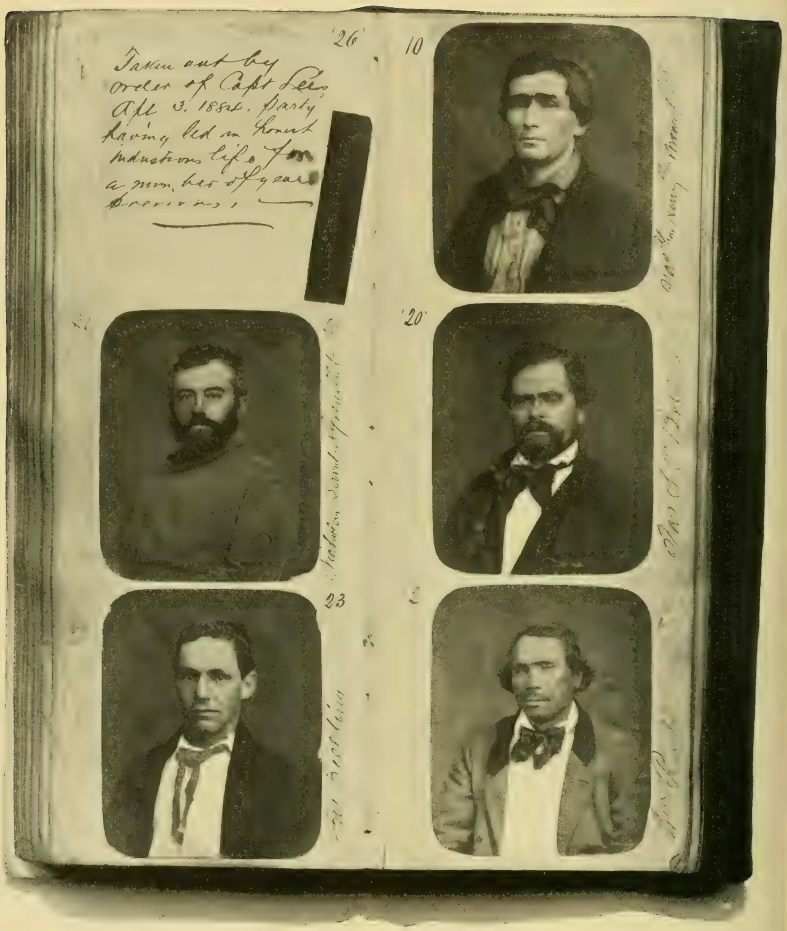
The process of producing the daguerrotype was by no means a simple one and required much experience. The method followed by the official artist was to coat a thin copper-plate, about 3 x 4 inches in size, by the galvanic plating process, with a thin film of metallic silver, carefully polishing the silvered surface, and then subjecting the silvered copper-plate to the fumes of iodine, bromine and calcium of hydrate in the darkroom. The plates were exposed in the camera and subsequently developed with mercurial vapor, fixed in a solution of sodium, hyposulphite, and then washed in running water; toned in bichloride of gold and sodium sulphite bath; dried over a spirit lamp, and bound and framed under a glass plate in the old-fashioned passepartout leather case.

SERGEANT "TIM" BAINBRIDGE, WHO HAS HAD CHARGE OF THE ROGUES GALLERY FOR THIRTY-FIVE YEARS.

This was the method employed until 1859. The Rogues' Gallery up to this time had proved to be such a valuable aid in the tracing of criminals and their past records that a great demand for duplicate pictures of criminals was created, but the price being too high to permit many duplicates, several experiments were conducted by the artist in making negatives by the collodion wet-plate process, and printing the image from the negatives on leather and paper, sensitized with a silver solution and fixed with hypo. The experiments were successful and the old method was abandoned for all time.

These prints by the new method were mounted in book form, about six hundred prints in each leather-bound volume, and each photograph was numbered and identified. In addition to the photographic album, a record-book containing a minute description and the history of each criminal photographed —such as birthplace, occupation, age, height, weight, complexion, color of eyes, form of nose, style of face, and any peculiar marks or defects on face or body — was compiled.

To illustrate the great value of these early photographs as an aid to the



TWO PAGES FROM VOL. I, NO. 1, IN THE PIONEER ROGUES' GALLERY OF THE WORLD, SHOWING TYPES OF EARLY CALIFORNIA CRIMINALS. THE BLANK SPACE WAS ONCE OCCUPIED BY A PHOTOGRAPH OF A MAN WHOSE MEMORY TODAY IS REVERED AS A PHILANTHROPIST.

identification of criminals, I find in the first volume of the Rogues' Gallery, page 2, photo No. 4, a picture of two little boys. On the right side of the picture are the features of Robert Durkin, alias English, alias Ellick. The record-book gives his age as "fifteen years; born in England; has been arrested and sent to prison frequently for cutting and stealing." In 1859 he was sent to the State Prison for one year for perjury, at which time this picture was taken. He was rearrested in 1861 for petty larceny and convicted and photographed again. In 1874 he was convicted of grand larceny, and again his picture is found on the pages of the Rogues' Gallery. In 1893 he was convicted of burglary and rephotographed, and sent to San Quentin for seven years. During this trial he gave the name of J. D. Purdy, and, after denying his previous arrest, Detective "Tim" Bainbridge, in charge of the Rogues' Gallery, quickly recognized him from the previous photographs taken of him, and his long criminal record was thus established.

FROM BOYHOOD TO OLD AGE.
THE BOY ON THE RIGHT IS ROBERT DURKIN, WHOSE PHOTOGRAPH IS IN THE ROGUES' GALLERY SEVEN TIMES. TAKEN IN 1859.

Instances of this character could be cited by the hundred by Detective Bainbridge during his thirty-five years of service in this department, where the criminals, upon being rearrested, give fictitious names and use every means to mislead the officers. The Rogues' Gallery of the Police Department of San Francisco was begun in book form in 1859, and the photographs are kept to the present day in the same manner, three being mounted on a page. Examining the different volumes, it is interesting to note the action of the various printing papers used during these many years, their durability being thus recorded with more or less success.

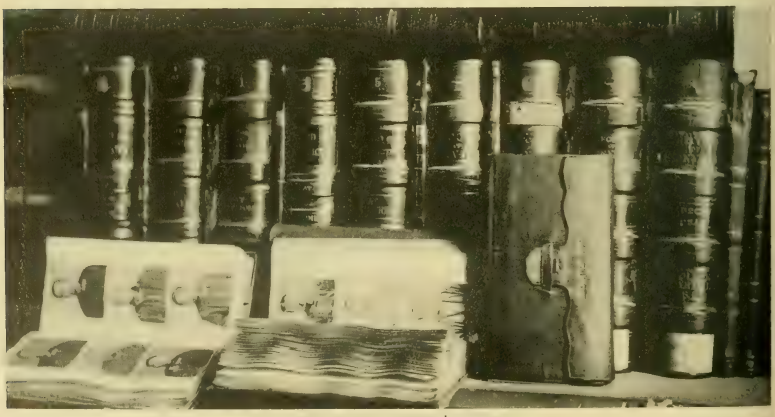
ROBERT DURKIN AT THE AGE OF 55.

At present the Rogues' Gallery contains over 40,000 photographic images — 15,231 being the number taken of the Caucasian and negro races convicted of felony in the city of San Francisco since the beginning of the Rogues'

Gallery. There are twenty-seven volumes of photographs, kept in steel safes, together with twenty-seven volumes with corresponding numbers, containing full descriptions of each criminal. In addition to these volumes there are, in the Chinese department, about 3000 pictures of highbinders and Chinese felons. A separate department is maintained for foreign criminals, with over 2000 prints and descriptions to its credit. The State Prison at San Quentin contributed 18,851 photographs, and the prison at Folsom 4510 photographs of convicts.

The method of tracing the previous record of a criminal is so simplified and so well indexed that it is the work of but a few minutes to trace the number of previous convictions. Officials from all over the world in search of fugitives from justice, or bent upon a pleasure trip, visiting the Police Department of San Francisco in the seventies, were strongly impressed with the tremendous advantage of preserving photographic records of criminals, and the result was that rogues' galleries were established in Chicago and other cities of the United States. London followed in 1885, Paris in 1888, St. Petersburg in 1889, Berlin, Melbourne and Vienna in 1890, Calcutta in 1892, and hundreds of other cities throughout the world maintain today a photographic gallery in connection with the Police Department. Thus San Francisco became the pioneer of the cities of the world in this important system, by which thief-catching was made easy and criminals awed into submission to the laws of the land.

Recent writers on criminal photography have given the credit of starting rogues' galleries to every city but San Francisco and it is for the purpose of refuting these claims that this article is written. Before other cities in the world awoke to the necessity of preserving in permanent record the features of their criminal element, San Francisco's police department was in possession of thousands of photographs of criminals, men and women, representing every race on the globe.



A PORTION OF THE ROGUES' GALLERY.

HOW THE LARGEST PHOTOGRAPH EVER MADE OF A TOTAL SOLAR ECLIPSE WILL BE TAKEN AT SUMATRA.

By E. E. Barnard of Yerkes Observatory,
Chief of the United States Naval Observatory Expedition to Sumatra.

ON FEBRUARY 16TH THE MOST IMPORTANT ASTRONOMICAL EXPEDITION EVER SENT OUT BY THE UNITED STATES LEFT SAN FRANCISCO ON BOARD THE U. S. TRANSPORT SHERIDAN FOR MANILA. THE PARTY UPON ITS ARRIVAL WILL BE MET BY A WAR VESSEL AND CONVEYED TO SUMATRA, IN WHICH COUNTRY OCCURS THE LONGEST PERIOD OF TOTALITY. THE UNUSUAL DURATION OF THE PERIOD OF TOTALITY AND THE USE OF THE LARGEST PLATES EVER EXPOSED IN ASTRONOMICAL WORK MAKE THIS EXPEDITION ONE UPON WHICH THE EYES OF THE ASTRONOMERS OF THE WORLD ARE CENTERED. IF THERE IS AN INTRA-MERCURIAL PLANET, THAT VAGUE, MYSTERIOUS SOMETHING ABOUT WHICH THE WORLD HAS SPECULATED FOR YEARS, ITS WHEREABOUTS WILL BE DISCLOSED BY THE BIG PHOTOGRAPH WHICH PROF. BARNARD WILL MAKE. S. A. MITCHELL OF COLUMBIA WILL REPRESENT "CAMERA CRAFT" WITH THE EXPEDITION.—EDITOR.

THE SIXTY-FOOT CAMERA, SHOWING THE COELOSTAT.

The editor has asked me to give a brief statement with reference to the proposed use of very large photographic plates during the coming eclipse of the sun, which takes place in Sumatra on the seventeenth of May of this year. The use of very large plates in eclipse work is of but recent date. In 1900, during the total solar eclipse of May 28th at Wadesboro', N. C., plates 30 x 30 inches were used by the Smithsonian Institute, and similar ones 25 x 30 inches were used by the Yerkes Observatory party at the same place. The success of these large plates in showing the details of the solar corona suggested the possible use of still larger ones in the Sumatra eclipse, where, on account of the very long duration of totality, it would be possible to give exposures so

TAKEN BY "CAMERA CRAFT." THE ASTRONOMICAL PARTY ON THE U. S. T. "SHERIDAN." *Made with a Graphic.*

long that the entire plate would be covered with the corona on a large scale.

Those who have handled large plates know the difficulty of developing them successfully but the development of the 25 x 30 plates of last May showed that it would be possible to develop much larger ones if they could be successfully handled in exposures on the corona. It was decided that in this eclipse it would be possible to handle in exposure and development a plate as large as forty inches square.

As every second in a total eclipse of the sun is of the utmost importance it became necessary to devise a method of handling such plates with the least possible loss of time. It was proposed to not only use 40 x 40 plates but also to use two other sizes smaller, viz., 30 x 30 and 14 x 17 inches.

It became a serious question how to handle these different-sized large plates but it was finally decided to make a frame for the 30 x 30 plate-holders, which have kits for 14 x 17 plates. This is to be made of the same width as the 40 x 40 plate-holder. They are to be fastened rigidly together so that they can be moved up and down between two vertical posts in grooves. The heavy weights of these plates and holders are relieved by suitable counterpoises, the whole made to slide up and down between the two posts just as a window-sash may be raised or lowered. Each plate can therefore be brought at once into position for exposure. As the telescope will be a horizontal one the plates will be in a vertical position.

The instrument to be used is a Coelostat. With this instrument everything remains stationary except the polar axis, which is rotated at the rate of one revolution in forty-eight hours (twice as slow as the ordinary motion of an equatorial telescope). This axis covers a fifteen-inch, plane, silvered glass mirror, which is placed parallel to the polar axis. This mirror reflects the

sun's light into a stationary six-inch photographic lens, which has a focal length of 61½ feet. At the focus of this lens is built a darkroom, in which the plates are exposed. This darkroom is connected with the six-inch mirror by a horizontal tube made of paper over a slight wood frame-work. The observer is, of course, in the room where the plates are exposed, and can see the image as it falls on the plates. The large plates to be used have been made especially by the Cramer Dry Plate Company of St. Louis, and will be heavily backed to prevent halation.

On account of the long focus (aperture to focus = 1 : 123) and the use of the mirror, the exposures required will be much longer than with ordinary telescopes. The great duration of totality at the present eclipse—at our station, 355 seconds—will, therefore, be especially suited for the Coelostat, as a number of plates can be exposed much longer than usual.

The great plate, 40 x 40, will have an exposure of 150 seconds; another will be exposed sixty seconds, and others with less exposures down to one-half second.

The large plate will cover a region one degree and a half all round the sun. The long-exposure plate is expected to show any star as small as the eighth magnitude that lives in this region. If, therefore, an intra-mercurial planet as bright as the eighth magnitude lies within 1½° of the sun, it will be shown on the big plate.

The exposed plates are to be developed with pyro, as I found that it gave the best results for the eclipse plates of last May.

The party is composed of Prof. E. E. Barnard, Yerkes Observatory; F. B. Little, W. S. Exchielberger, A. N. Skinner, Paul A. Draper, L. E. Jewell and G. H. Peters, United States Naval Observatory; S. A. Mitchell, Columbia; H. D. Curtis, Walter Dinwiddie and W. J. Humphreys, University of Virginia; C. G. Abbot, Smithsonian Institute and W. J. Hussey, Lick Observatory.

San Francisco, February 16, 1901

NEGATIVE BY OLIVER LIPPINCOTT, LOS ANGELES. GRIEF. (*Salon Picture.*)

WHY DON'T YOU FOLLOW DIRECTIONS?

BEING SOMEWHAT OF A PROTEST FROM A "QUERY COLUMN" EDITOR.

By Hubert McBean Johnstone.

Negative-making is a subject that seems to be just as full of little puzzles to the twenty-year professional as to the twenty-day amateur. I have had the pleasure of conducting the query column in one of the leading amateur journals for about four years now, and I know from experience what the most popular (if I may use the word) troubles are, and just where the erring lambs have gone astray. The main trouble, in fact, the trouble of which the others are all mere details, is that the amateur simply won't follow directions. May be he thinks that the plate manufacturers put in printed slips of directions just because it somehow manages to afford them pleasure, or, perhaps, he thinks it is done just for appearance's sake, or because it is customary. Well, that's right where you fool yourself, amateur. Those directions have all been carefully studied out in order that a developer may be compounded with ingredients in the proportions that will agree best with the ingredients used in the making of the film with which the plate is coated. And then the other directions, such as those referring to temperature and illumination of the darkroom, are intended to be followed, too. That is if you want perfect negatives.

Several months ago an amateur acquaintance came to me with a long tale of woe. He told me that all the plates he had developed during the last month had been covered with a thin veil of fog. They made printable negatives, you understand, but somehow they seemed to lack that brilliancy so essential to a good negative. I could not understand it. I knew him to be an earnest and careful worker, and to follow the directions given to the best of his ability. Where could the fault be? Well, to cut a long story short, we took his camera and made an exposure, and then went up to his darkroom to develop it. The darkroom appeared to be all right, too, and for a while I couldn't locate the trouble. Finally, I asked him what plate he was using, and the cat was out of the bag. "Isochromatics," he said.

"Why, you idiot," I cried. "How long since you quit using Cramer Banners? This ruby light you have is about twice too strong for an Isochromatic. No wonder your plates are fogged." Yet, in the ordinary sense of the word, he was what I would call a very careful worker.

Another fault I find to be very common among amateurs, though not so among professionals, is a too sparing use of the dusting brush. Most amateurs have one; they get it on the start, because the salesman said it was a necessity, and they keep it laying on the table with the rest of their tools. I suppose the reason they keep it laying there is to give it plenty of opportunity to gather dust and hypo and whatever else may be there. Now, let me suggest a little scheme, or rather not suggest but recall it, for I picked it out of a journal some years ago myself—have your brush hanging from the ceiling by a good, stout cord, so that it is about on a level with your elbow, and you have reduced its power of accumulating dust to a minimum, as well as having fixed it so that it can be found when it is needed. I know of nothing more aggravating than to be unable to find the dusting brush when you have your plate-box

and holders open and all ready to load. It's apt to make a fellow feel like saying all sorts of bad things. Just a word on its use. Nineteen out of twenty amateurs seize it and run it hurriedly across the face of the dry plate, and imagine that they have improved matters. Well, they haven't. They have instantaneously electrified the surface so that all the loose particles of dust in the air are thereby attracted, and the condition of the plate is worse than if you had left it alone. You have to run it across slowly and lightly to remove the dust. And, say! do you dust out your plate-holder each time just the same as you dust off your plate? No? Well, you should, or if you don't you might just as well be without a dusting brush, because that little holder can hold more dust than the plate. It can hold enough to create a most magnificent pinhole effect. I know pinhole photographs are said to be very effective, but not this kind.

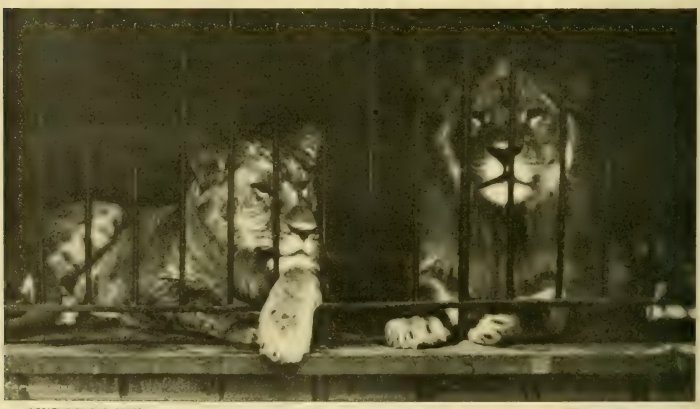
During the summer months, if you take a picture, and then unpack the plate for development a couple of months later, you will have to be careful in the repacking. I saw a box of plates packed once with a piece of newspaper laid on top of each one to prevent scratching from contact with the one below it, and I remember the day we opened the box. One snapshot of a drunken old toper clinging affectionately to a lamppost had the word "McKinley" in big, reversed letters across the top. Investigation showed that the paper which had been in contact with the plate had a heading on it with McKinley's name in big letters. Another thing you will have to be wary of is finger marks. I know you are careful not to touch the film with perspiring fingers, but are you as careful about the backs? I guess not. And then you put your plates away all of them film side down, as you would negatives, and the consequence is that, when you come to develop, you find great, big finger marks on your choicest negative. It is always the best that is spoiled, you know. You can easily remedy this by packing them film to film.

I remember getting a letter once from a chap who wanted to know what the little, brown specks were all over his negative. Of course, I am expected to know all these things without even seeing the negative. If I didn't I wouldn't be running a query column. Well, I sent for the negative and examined it, and for a few minutes was just about as puzzled as the amateur was himself. The cause was so simple that I couldn't think of it for a moment. However, I wrote to him and told him to tie a piece of cotton-flannel over the faucet to keep back the pipe rust and sand, and after each negative was thoroughly washed to rinse it off and gently pass a soft, wet sponge over its surface, taking care, of course, that the sponge was really very soft and wet. That fixed his trouble all right, but it is surprising how a little thing like that will often prove a big stumbling-block.

I am frequently asked why it is that some negatives are more brilliant than others, and occasionally I am sent two negatives for comparison. The first question I always ask is, "Were both exposed correctly?" and usually that locates the disturbance. It is also well to remember that thorough fixing and thorough washing, followed by quick drying, assists greatly in the producing of a fine printing quality, and that if the negative is weak then it can be re-wet and dried in a slight heat to intensify it. This plan will often answer, too, where it is desired to only slightly intensify a negative.

How many negatives do you develop at once? One or six? When you started you only developed one, of course, but now you are getting bolder and you are running up two, three, four, just whatever you happen to have on hand when you start work. Now, do you think you can produce as good results and watch four or five, as you can when you only have one in your tray? O, yes. I know that Mr. Shinitype, the professional, develops five or six at a time and makes good negatives, too; but, my dear friend, Mr. Shinitype is quite satisfied if he secures a certain amount of excellence in his results, and as long as his customers are pleased why shouldn't he be? He is not working for the advancement of the art. Not much. It is his pocket that he is looking after. Anyhow, old Miss Jones will never know that he could have improved on her nose if he had just given it a little care during development. And as long as she doesn't know it she is not going to make a kick, is she? So why shouldn't he save time? But you are not that way, or, if you are, you shouldn't be. You should be looking for the opportunity to improve on each detail of every negative, and you certainly cannot do that if you go at it in a wholesale way. I think that there are more half-bad negatives turned out each year by amateurs just through trying to hurry than from any other cause — and you know amateurs do make a lot of failures from other causes, too.

But I am not going on to give the various ways of treating weak negatives, or strong negatives, or yellow and mottled negatives, or negatives that are failures from a hundred and one other causes. Why should I? Doesn't every plate manufacturer do it in the printed slip of directions he issues? Yes, sir, he does, and that is just what I want to impress upon you. He puts out directions suitable for the manipulation of his plates, and if you will insist on trying to use somebody's developer on somebody else's plates, you certainly have no cause for complaint when you get inferior results. Now, this is the beginning of a century and the time for making good resolutions. The best resolution that every amateur photographer can make is to "follow directions." And right to the letter, too — that's what they are there for.



NEGATIVE BY F. C. BANGS. THE MONARCH AND HIS MATE. (*Salon Picture.*)

NEGATIVE BY F. E. MONTEVERDE. TRIBULATIONS.

A PHOTOGRAPHIC SLIDE RULE.

TOGETHER WITH A SIMPLE METHOD OF FINDING THE EQUIVALENT FOCUS OF ANY LENS.

By Allen H. Babcock.

Nearly everyone who has made enlargements has been puzzled at times to decide whether or not the image was in sharp focus, especially when the negative was dense and the light not strong. Under these conditions the best eyes soon become tired, and there results an exasperating uncertainty that can be removed only by an actual trial exposure. Reduced to its simplest form, the problem is to place the lens and the bromide paper at such distances from the negative that the resultant image shall be of the desired size and shall be sharp. For a given lens and a given ratio of enlargement, there is one, and only one distance for lens and paper which will fulfil the conditions as stated, and these distances are easily calculated. Having the distances accurately determined, it is a simple matter to place lens and paper by measurement, and to be certain that the image is the best that can be had with the given negative. If one was working always with the same-sized plates and paper, one set of figures would do, but it is often of advantage to enlarge a part of a negative, and few of us like to be tied down to a single size of paper. The object of the device to be described is to give the required distances at once for all ratios of enlargement.

Figure 1 shows the rule in its final form. For the reason that lack of space in the darkroom prevents a greater enlargement than ten to one, the

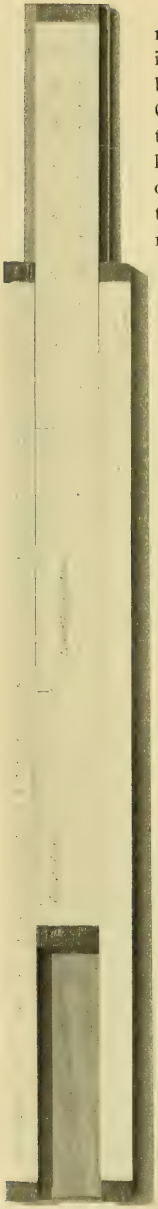


FIG. 1. SHOWING THE RULE SET FOR A TWO-TO-ONE ENLARGEMENT.

rule is not laid off for greater ratios; also, it is a little simpler in this form. It is used as follows: The middle part slides between the outer scales, and can be set at any position. Considering, now, the two lower scales; on the upper one set the size of plate over the corresponding size of paper on the lower one, and under the figure 1 on the left, read the ratio of enlargement. The illustration shows a setting for a 4 x 5 to an 8 x 10, or a 3¼ x 4¼ to a 6½ x 8½; in other words, a ratio of two to one. Considering, now, the upper scales; under the right end of the upper one read 16-9/16, which is the distance of lens from negative, and over the left end of the lower one read 49-11/16, the distance of paper from negative.

Figure 2 shows the arrangement in the darkroom. The graduated scale has its zero point directly under the film side of the negative. Under the optical center of the lens combination is a pointer which moves with the lens, and which ends close to the scale. A similar pointer is placed under the Bromide paper. By these are made the settings indicated on the slide rule. When a part of a negative is enlarged it is necessary to regard the part as if it were cut out of the plate, measure one side of it, and set the rule accordingly.

Before making a rule it is necessary to decide, first of all, that it is worth while. It can be used only with the lens it is calculated for, or one of the same equivalent focal length. The calculations for the upper scale will take several hours, unless one is an expert draftsman and can lay off by eye the fractional points between the inch marks. On the other hand, once done it is done for all time, and it is my opinion that it is well worth while to take the trouble, especially if it is done in odd moments and not made a task. It is safe to say that no one who has worked with such an aid will ever give it up. Next should be decided the length of the rule. It may be of any length, but the calculations are easiest for a length of 10 inches, and the drafting is easier the longer it is. In any event, it should be a multiple of 10 inches, the reason for which will appear later. The one illustrated is 20 x 3 inches. The scales were laid off on heavy Bristol board, and were not cut apart until they had been glued on to the wood backing. This was made of black walnut, 3/16 of an inch thick. First a piece 3 inches wide was cut. Two pieces, ½ inch wide, were glued thereon, in such a manner as to leave a space 2 inches wide down the center. Before going further a piece was fitted to slide easily in this space. Then two pieces, ¾ inches wide, were glued on the ½-inch pieces, so as to leave a space 1½ inches wide down the center. Then the 2-inch piece was slid into place and a piece 1½ inches wide was glued on top of it.

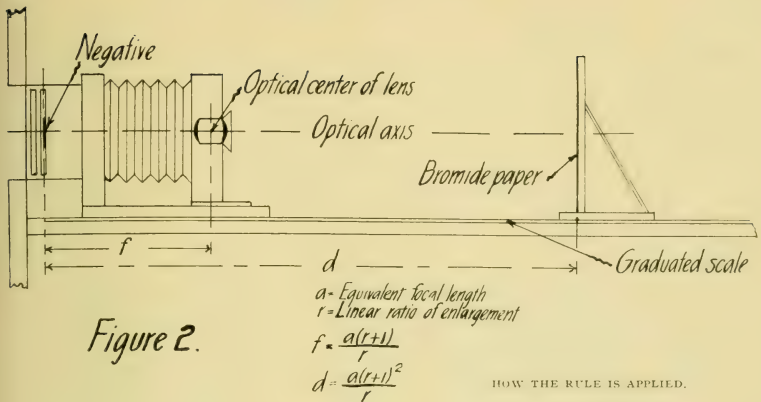


Figure 2. HOW THE RULE IS APPLIED.

It is simpler to do it than to describe it.

After the scales were laid off the whole top of the rule was given a thin coat of glue, the scales were laid on carefully and rubbed down, particular care being taken to avoid stretching. Then a sharp knife was run down the two cracks and the slide pulled out, to prevent its sticking fast by the glue which had been forced into the cracks. After it was all dry the edges were rubbed down with fine sandpaper and a coat of white varnish applied over all.

To calculate the scales, first get a table of logarithms — a four-place table will do. It will be noted that the two lower scales are identical and are graduated in tenths, while the upper scales are unlike, except that both are graduated in eighths. The lower scales are logarithmic, which is to say that they are a table of logarithms expressed in lines and distances, instead of in figures. Logarithms are so related to the common numbers that when they are added the result is the product of the corresponding numbers, and when they are subtracted the result is the quotient of the numbers. Now, when the figure 4 on one scale is placed over the figure 8 (as in the illustration), a distance 4 is subtracted from a distance 8, and there remains a distance 2; in other words, the quotient of 8 divided by 4 is 2. For any position of the slide, under the 1 on the left will be found the quotient of any number on the bottom scale divided by the number which is directly over it on the upper scale, which is to say that a ratio is shown by the position of the slide. For the purposes of the rule, we have chosen to make this ratio the linear ratio of enlargement. It might have been chosen to represent anything, for the principle of the slide rule is adapted to any calculation which may be performed by logarithms.

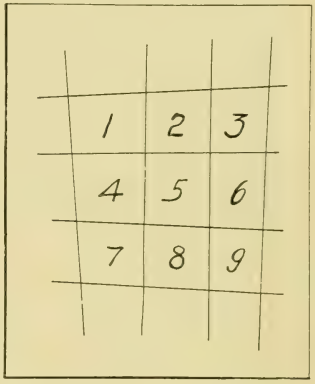


Figure 3.

To lay off the two lower scales, take out the logarithms of the numbers from 1 to 10 by tenths, (1.1, 1.2, 1.3, etc.), and multiply them by the length of the scale in inches. The product will be the distance from the left side of the scale to a line representing that number. It is useless to attempt to work closer than 1 ⁄100 of an inch, but even a fair draftsman ought to be able to work that close.

Before starting the calculations for the upper scales, it is necessary to know the position of the optical center of the combination and its equivalent focal length. In the case of lenses with diaphragms between the parts of the lenses, the optical center may be considered to be located at the diaphragm; in the case of a simple achromatic, its center may be found at the same time its focal length is determined.

To find the focal length of a lens, or the equivalent focus of a combination, rule a piece of ground glass similar to figure 3, using a good black ink

NEGATIVE BY H. A. LATIMER, BOSTON. EVENTIDE. (*Salon Picture.*)

and a rather finely set pen. When the ink is dry, lay over it a piece of clear glass, which has been rubbed with chalk, and trace on it the system of lines on the ground glass. It is important that the two glasses should be as nearly exact copies as possible. The squares should be numbered for identification purposes. In a darkened room, mount the clear glass on one side of the lens and place a candle back of it. On the opposite side of the lens mount the ground glass in such manner as to receive the image of the other, remembering that the image is inverted. Now move the two pieces until the image from the one is *exactly* superimposed on the other. It will be impossible to accomplish

this until they are at equal distances from the optical center of the lens, and are on the optical axis. When the images do coincide exactly they are correctly placed. Now measure the distance between them; one-quarter of it is the equivalent focus, and in the case of a simple achromatic lens, its optical center will be equidistant from the two gla es.

For the calculation of the scales, it will not do to take the focal length as given by the makers; it is not accurate as a rule. In the equations given in figure 2, f is the minor conjugate focus and d is the sum of the conjugate foci. To calculate the points in the f scale, give f all integral values between a and

NEGATIVE BY E. S. CURTIS, SEATTLE. THE MOTHER. COPYRIGHTED.
(*Salon Picture.*)

a, substitute these values in the equation, and solve for r. Then take out the logarithms of all these values of r, and multiply them by the length of the scale in inches to find the points in the scale. Note that r decreases as f increases, so that to make the f scale bear its proper relation to the others it must be laid off from the right instead of from the left, as all the others are. A good draftsman will lay off the intermediate points by eye, but for accuracy, most of us will have to calculate them, and it is not much of a task when the equation is reduced to convenient form. The lower end, where the values change rapidly, should be calculated for the intermediate points, in any event.

It is better to lay off both the upper scales in eighths, because yard-sticks so graduated can be had for the asking at most picture stores, and several of them laid end to end make a fine scale for the long bar.

The calculation of the *d* scale is a far more laborious task. A table of squares and square roots will be found to expedite matters materially. While *f* can never be less than *a* or greater than 2*a*, *d* may have any value from 4*a* to infinity. It is best to calculate the value of *d* for the highest ratio the rule can show, and then give *d* all integral values between 4*a* and the maximum value of *d* so determined. Substitute in the equation as before, and solve for *r*. It will be found that at first the calculated values of *r* change with rapidity, and that the differences between two successive values diminish more and more slowly. A mathematician expresses it in this way, "the slope of the upper end of the curve is nearly constant." Advantage may be taken of this fact when about three-fourths of the scale is calculated. Determine *r* for every tenth value of *d*, and add successively to the lower value 1/10 of the difference between them. In this manner, and with the help of the tables before mentioned, the rule illustrated was calculated for values of *d*, by eighths for the first five inches, and by even inches for the remainder of the scale, in about four hours. The other scales took much less time.

In case the paper should be larger than ten inches, imagine the lower scale multiplied by ten; for example, suppose it should be desired to enlarge a 4 x 5 to 18 x 22, run out the slide to the left until four comes over 1.8, then the ratio of enlargement is 4½, the lens distance is 13½, and the paper 74⅛. No confusion arises if it is remembered that the *f* scale, where it is met by either end of the *d* scale, always gives the lens distance, and that the paper distance is always found on the *d* scale at either end of the *f* scale.

The rule is adapted for reductions as well as for enlargements, though there is not so much need for it here, on account of the condensation of the light. Remember that *f* is always the minor conjugate focus, so that for reductions the scale gives distance from lens to slide, instead of from lens to negative.

This article has been written not with the intention of claiming any credit in the making of slide rules, but entirely in the hope that some one will find in it a means of overcoming one of the trials of the darkroom. The principle of the slide rule is an old one. It has been worked out thoroughly by many and for several different purposes. Broadly speaking, it may be made to express the result of any calculation that can be performed by the aid of logarithms. The most that the writer can claim is an adaptation of an old principle to his particular needs.

The late Signor Verdi, the illustrious Italian composer, had a perfect horror of amateur photographers, and not without reason, as his picturesque appearance rendered him a very tempting subject. His most effectual method of warding off attack was to open his umbrella and take refuge under it the moment he espied one of the, as he termed them, "infernal machines." Oddly enough, one of the best portraits of him in existence is an amateur one. The lucky possessor of this snapshot caught Signor Verdi when off his guard as he stood talking to his friend Boito, the composer, and got a full-face portrait. —*The Amateur Photographer.*

FINE FOCUSING SCREENS.

By H. D'Arcy Power, M. D.

There is a large number of subjects where the attainment of an absolutely sharp focus is a matter of the highest importance. It is thus in microphotography, in all photographs for scientific purposes, and even in pictorial photographs intended for enlargement. Much advice is given to attain this end. One recommendation constantly found in text books is to fasten a microscopic cover glass with Canada balsam on the ordinary ground glass, and by the aid of the lens focus the aerial image at this point.

In practice this method is not satisfactory. It often happens that the clear glass cuts into the image on the ground glass and leads to misjudgment of the picture as a whole. Recently a formula has gone the round of the photographic journals, both American and foreign, to the effect that an ideal screen may be made by discharging the silver from an ordinary dry plate with hypo, washing, soaking in a solution of barium chloride and removing to a bath of dilute sulphuric acid, whereby barium sulphate should be precipitated in the gelatine in fine division.

It seemed good enough to try, but the writer, though trained in chemical manipulations, has had no great success with it, the powder being precipitated unequally, giving a spotty, unequal screen.

Recently the writer read a statement to the effect that a screen of any degree of fineness could be made by soaking gelatine in milk until soft, pouring off the unabsorbed milk, melting the mass by gentle heat, and therewith coating clean glass and allowing it to set and dry. It seemed feasible, so the method was tried, and found to be an unqualified success. The long sought was found. The grain was perfect; the very finest details could be sharply focused, and yet the image on the screen had strength and substance. Two precautions are necessary in making the screen. First, use a minimum of heat in melting the softened gelatine, or fat globules, and flakes of casein will separate. Second, strain the mixture through a piece of muslin before coating the glass. Moreover, while it sounds easy to say coat a sheet of glass with gelatine, in practice it is not so without precautions. First, the glass to be coated must be placed on a levelled surface. Second, it is necessary to warm the glass or the gelatine will set and refuse to flow equally. The best results are obtained by warming two sheets of glass and placing one under to better retain the heat. Any degree of fineness may be obtained by diluting the milk with water before putting the gelatine into it. To dilute the melted mixture with water does not answer as well. The writer is constantly making photographs of anatomical subjects, where it is necessary to reproduce the minutest details. Since making this screen the focusing difficulties are things of the past. Lastly, the cost is less than that of common ground glass.

The camera is responsible for an innovation in Turkey, where the Sultan has authorised the ladies of his harem to be photographed. An anomaly in connection with this photograph is that the members of the Sultan's harem elected to face the camera attired in dinner-gowns of the latest Parisian style, in lieu of the more picturesque Oriental costume.—*The Amateur Photographer.*

THE NEW YORK PRINT EXHIBIT AT THE CALIFORNIA CAMERA CLUB.

WITH REPRODUCTIONS OF SOME OF THE PRINTS.

NEGATIVE BY E. N. WATERMAN. SNOWY DAY IN CITY HALL PARK.

Forty-eight prints in carbon, gum and platinum illustrate the work of the Eastern workers on the Camera Club walls. Taken as a whole, there is nothing startling in the collection, little to call forth the ire of the photographic purist, and, be it with all humility confessed, little to overwhelm us Westerners with despair. The most of the exhibit is good — good composition, good technique, good conception and artistic feeling. Nevertheless, there are some commonplace prints, and some that, if not absolutely bad, certainly have no *raison d'etre*.

To deal with the prints in detail, we have five studies by Charles I. Berg. The first, "Magdalen," is a charming study in the nude and has attracted much attention. "A Portrait Study" and "A Study in Drapery," while lacking the poetry of the "Magdalen," are, in other respects, more satisfactory, and gain much by the clever use of the brush in the background. Two studies of a female head and bust in pseudo-Byzantine headgear are clever, but spoiled by tawdry gilt framing.

L. W. Brownell exhibits a very beautiful study of a semi-nude back and partial profile of the face. J. Edgar Bull has a small print of a typical Scotch street, charmingly mounted, first on rice paper and then on a pure white mount and framed in passepartout.

In the way of still life, W. J. Cassard's four pictures, "Grapes," "Teal," "Grouse" and "Peaches," can hardly be equaled, and are furthermore an exemplification of the value of carbon as a printing medium. W. A. Fraser has two large examples of night photography, of the style familiarized by Alfred Streglitz. "Wet Night, Columbus Circle," is particularly fine. Dallet Fuquet has three flat, watery looking prints that are remarkable for nothing

but their names. The first, entitled "A Street," consists, for the most part, of an ugly foreground of hillside running diagonally across the picture, with a forlorn and inconspicuous street in the distance. The second, entitled "Sultry August Noon," has not a suggestion of warmth about it—no sun, for there is not an indication of a shadow; in fact, it would have evoked less surprise as

NEGATIVE BY LEVERETT BROWNELL. A STUDY.

This print won first prize in the New York Camera Club Competition for the best portrait made in the Club Gallery.

"Chilly October." The third, called "A River of Dreams," is a commonplace stream that none would dream about for a moment.

Mrs. R. P. Lounsberg has a portrait of the painter, Hubert Vos, that is full of character, but somewhat marred by a staring white background. J. Ridgway Moore has eight good studies. "Tarpon Boats" is good, as is "Russian Peasant." "Pelican Bay" is eccentrically mounted at the top of a large

mat, and one asks why without prospect of an answer. "Lake Isabelle" would have gained by the omission of the needless figure in the foreground. "Eventide" is very pretty, but the best, in fact one of the best pictures in the whole exhibition, is the sitting figure of a woman in classic costume, entitled "A Pose." The attitude and the lines of the drapery are beyond praise. A female head, called "A Portrait," is also full of charm.

The lovers of straight photography gathered around the four pictures of William D. Murphy, of which the "Cathedral Interior" and "The Recessional" are splendid examples.

In some respects the best exhibit of the whole collection is that of W. B. Post. Of his four pictures, the gem is a small print entitled "Entrance to Ausable." In beauty of line, charm of gradation and mellowness of atmosphere, this print is unsurpassed by any other picture of its class. A. Wentworth Scott has a picture of a "Roman Maid" that is fair to look upon, but anything but Roman. We cannot say the same of his landscape in red gum. Green gum is a good medium for some things, but red gum for green trees is inexcusable. S. A. Smith has a good picture of a Cornish landscape, and what some would call a fuzzytype, entitled "The Harbor Road," which, nevertheless, is a good picture.

Four pictures by A. H. Stother — "A Quiet Port," "Monte Carlo," "Sunset in the Harbor of Venice" and "Under the Arch of Titus" — are all good. It is unfortunate that the sentiment of the last-named print is ruined by the presence in the background of a Philistine in an ungainly attitude. E. N. Waterman has some fine prints, of which "Salt Meadows in Evening Light" is very pretty, but "Haze" and "Gathering Gloom" are two poor gums. One is a red chalk landscape abomination. Why do men do such things? Lastly, we have Myra Albert Wiggins' child study, "Hunger ist der Beste Koch." This is too well known to need comment. Simple, natural and perfect in execution, it leaves no room for criticism.

NEGATIVE BY T. D'ESTRELLA. RATS.

First Prize, Animal Class—First San Francisco Photographic Salon.

PHOTOGRAPHING BY LAMPLIGHT.

By O. V. Lange.

While on a tour of the Photographic Salon I was attracted by a small but very pretty picture hanging on the west wall—an open fireplace, from which a warm glow of firelight seemed to stream, illuminating the kneeling figure of a graceful young girl. Although two-thirds of the picture was in shadow, still it was full of luminosity and transparency. Now, these very desirable qualities could only have been secured by comparatively long exposures. Having had some experience in fireside effects, I will describe two ways of getting similar results.

The first is by magnesia flash; but this does not mean a quantity of powder making a quick and sudden illumination, for this would preclude the appearance of any vitality in the shadows, besides the smoke being thrown into the room, making an unsightly blemish in the picture.

To get a comparatively long and steady flash without smoke is the problem to be solved. My method is as follows: Take flash-paper and cut it into strips one-half inch wide, pinning the strips to a board twelve by eighteen inches, more or less. The best way to arrange the strips is in ten or twelve zigzag rows, about an inch apart, each strip overlapping the other at the ends. The board is then placed diagonally on one corner, well into the fireplace. The lower corner, when ignited, will then gradually make a steady, wide sheet of flame, lasting several seconds, and all of the smoke will pass up the chimney. There are several ways of lighting the paper after the subject has taken position and the lens uncovered.

The first is by the aid of someone, who is out of the angle of view taken in by the lens, setting fire to the paper with a gaslighter or match tied on the end of a long stick.

The other method is to make a fuse out of coarse cotton twine, three or four strands twisted around each other, then dipped in alcohol and laid on the floor, the farther end just touching the lower angle of the flash-paper. There is plenty of time for the subject to get into position before striking the match, which must be done on the side farthest from the camera, so that the flame will not be photographed. After the alcohol fuse is once lighted it will take some little time for the flame to crawl to the flash. The alcohol flame does not photograph, as it is too pale.

Another method of making successful firelight effects is by the use of lamplight. Place three or more lamps in the back of the grate and set the camera at such an angle that they will not show on the ground glass. It is to be understood that round-wick burners should be used, as they give more than double the amount of light. If four lamps are used, a piece of ground glass should be placed in front of the flame. This gives a slight diffusion, which helps the shadows very much for detail. If you have no ground glass, rub soap on a large piece of plain glass.

Use only metol developer for this kind of lighting, and strengthen with mercury and ammonia if necessary.

Everything white or obtrusive in the angle of view should be removed, so as not to mar an otherwise good composition.

NEGATIVE BY STEADMAN & TRAGER, PUEBLA. COPYRIGHTED.

MEXICAN BEAUTY.

NEGATIVE BY STEADMAN & TRAGER. GREODELA. COPYRIGHTED

TYPICAL MEXICO AND ITS OPPORTUNITIES.

By F. M. Steadman.

Illustrated by the writer.

It is doubtful if any country of the same size has developed such a variety of characteristic types as Mexico, and in searching for the actual cause of this fact there are revealed many interesting peculiarities of condition and history. It is a saying, often in the mouths of foreign residents of Mexico, that if the people of the United States realized more fully what beauty and interest lay at their southern door, the Southern Pacific could not carry, nor the hotels accommodate, the increased traffic that would result.

For the student of past races there are ruins from the Gulf of Mexico to the Pacific Ocean which are yielding up their secrets year by year—silent revelations of races both industrious and cultured, that probably flourished before the time of the Roman empire. It is thought, and with probability of truth, that these ruins now being explored were ruins, and in nearly as bad condition, in the year 1052, when the Toltec empire was overthrown and its people scattered.

For the artist and the student of nature the complete scale, from the snow-covered peaks in their whirling veil of storm to the smiling gulf on the east and the foam-crested ocean on the west, offers opportunities which have never yet been appreciated. All temperatures and altitudes, each with its accompanying vegetable and animal life, invite the artist to do his best. The streams go down to the sea in furious leaps and laughing rapids, through mountain gorges hung with ferns and subterranean, moss-grown ways, their

waters shadowed by vines and orchid-covered trees, where monkey and parrot have their paradise. Close at hand the stream broadens out between sloping banks in a valley where dwell the remnants of an ancient race, speaking a strange language and having its own peculiar custom of living and manner of dress, untouched by the nervous hand of modern civilization. Among such people as these, with simple needs and little ambition, are always to be found

NEGATIVE BY STEADMAN & TRAGER. AN OAXCA GIRL.

those crude and primitive wares which are to us the type of a different life, yet speaking eloquently to the artist's eye, searching for simplicity and a lack of commercialism.

In Yucatan there exists a condition which has no parallel in the world. During the present month occurs the famous Merida Carnival, a yearly institution participated in by every class, and during which no expense is spared

in the perfection of their simple plans for enjoyment. Two of the societies formed by the Mayos in Merida will each spend small fortunes for music at the numerous fancy-dress balls. These people are by no means poor, but are the middle class of Yucatan, from which spring the servants and the artisans. They are a cleanly race, of upright character and temperate in habits, having in daily practice many of the beautiful and peculiar ideas of socialism, a con-

NEGATIVE BY STEADMAN & TRAGER. A YUCATAN TYPE.

dition existing nowhere else in the world. What I have said concerning the Yucatan carnival has no reference to the carnival proper, on which an incredible amount of money is spent yearly.

Besides its interesting people, Yucatan has many beautiful and important ruins to interest the traveler. However, if you are after a good time as well as to see the sights, you may take your kodak on an early market morning

and journey to the suburbs of any city or town, and hunt for types as the come in from the country with their wares. You must, however, hire a assistant in the person of the nearest policeman to run your subjects down fo you. These people are from the far country and are not familiar with th appearance of the modern camera, so that only "the strong arm of the law (in consideration of a dollar) can make them remain quiet before the photog rapher.

Add to the thought of Mexico the nearness of her past to the present— the victor in her last war is still her honored President — and the great variet of her industries, from the coast fisherman to the miner of the mountains add to this the cosmopolitan character of her population in general, and ove all throw the many-colored lights, common to all the world, of youth, middl life and old age, and you have surely a broad field in which to search fo either pleasure, knowledge or pictures.

The people of the Pacific Coast have a great deal in common in artisti interest as well as in their commercial lives with the people of Mexico. Th interest that was awakened on the occasion of the recent most successfu Southern Pacific excursion to Mexico and the the efforts of that company a the present time and promise of yet more active work on its part in the futur are indicative of the closer relations, artistic, social and commercial, that are t exist between California and Old Mexico.

[Within the next several months Mr. Steadman will describe the famou Merida Carnival, referred to in this article, and will illustrate it with a numbe of his recent pictures.—EDITOR.]

NEGATIVE BY H. B. HOSMER ON MARK WEST CREEK. (*Salon Picture.*)

NEGATIVE BY W. J. STREET

THE SLEIGH RIDE.

THE CALIFORNIA CAMERA CLUB OUTING TO SHASTA.

WITH SEVERAL PICTURES.

"Hello, Clay 563?

"Is Billy Street there?

"Hello, Billy. Say Billy, are we going?

"Snowing like blazes, eh? Well, I guess, yes. Of course, I'm going. Rubber boots, gloves, color screen and whi——; all right, Billy; goodby."

This conversation, repeated some forty times between Mr. William J. Street, Chairman of the Outing Committee of the California Camera Club, and anxious club members who wished to join the snow-outing to Sissons and Mount Shasta, made the life of the telephone girl weary on the day preceding the departure.

When the train pulled out on the evening of the ninth, the special Pullman of the club was filled to overflowing. Packed in the smoking-room and in

Made with a Graphic.

SISSONS FROM BLACK BUTTES.

every vacant corner were cameras, boots, tripods, bags, boxes and bundles. In the smoker the men folk smoked and discussed the weather and prospects upon the arrival at Sissons. In the car the women folk discussed the men in the smoker. It was twelve o'clock before lights were out.

In the morning, when the early risers of the party arose, the train was steadily pushing its way through the grandeur of the Upper Sacramento Canyon. Snow on every side, on the trees and in the air. Overnight the train had slipped from flowers and sunshine to snow and cold. Toward noon the train pulled into Sissons, and glorious old Shasta spread out before the eyes of the photographers. Three feet of snow covered the whole country. From the heights of Shasta the snow was blowing in a thin, vapory cloud. The cold

NEGATIVE BY LEE ROY LEE.

SHASTA.

north wind swept flying particles of snow, from the roof of the railway station, into the faces of the photographers as they piled out into the snow.

In ten minutes the car was deserted and artists with great aims, frozen toes and frostbitten ears, wandered over the hills and made pictures of snow — snow in every condition and everywhere. Cheery Lee Roy Lee welcomed all to his establishment and extended the use of his darkroom to the visitors. From early morning until late at night the photographers made pictures.

In the afternoon H. B. Hosmer, also of the committee, organized a sleighing party. Loaded into two big sleighs most of the party went flying across the country. At the turn the horses were stopped to allow each member of the party to make an intimate acquaintance with the snow. Every one expressed satisfaction after the superfluous snow had been extracted from ears, nose and mouth.

PHOTOGRAPHY AND THE PAN-AMERICAN EXPOSITION.

By Louis B. Hart.
SPECIAL REPRESENTATIVE OF "CAMERA CRAFT" IN BUFFALO.

From the standpoint of the artists and photographers, the Pan-American Exposition, which will open its gates on May 1st, will surpass all former enterprises in many essential features. The Board of Directors has spared no pains or money for the acquisition of all that is best in its evolution and construction. The greatest architects in the world have been employed, and the one leading ambition of the workers has been carried to a successful termination in the symmetrical placing of the principal buildings with reference to one another so as to form a uniform series of connecting courts.

The principal court, known as the Court of Fountains, is so far under way as to furnish an idea of its magnificence and beauty when completed. The fountain and hydraulic effects are to be of the most artistic type, surrounded by magnificent groupings of sculpture. The horticultural and floral embellishment of the grounds, the sculptural and plastic decorations will set a new pattern for art students and designers. The exterior of every building is decorated in a style appropriate to the character of the exhibits it will contain.

A new feature of the Pan-American Exposition, and one that will be of general interest to the photographer, is the Graphic Arts Building, a handsome structure devoted to the display of printing and picture-making, half-tone processes and the like. The applications for space in the Manufacturers and Liberal Arts Buildings have vastly exceeded the space that can be allotted, and the exhibits will be chosen on account of their special features of interest and attractiveness.

NEGATIVE BY C. L. PAER

THE EXPOSITION GROUNDS IN MIDWINTER.

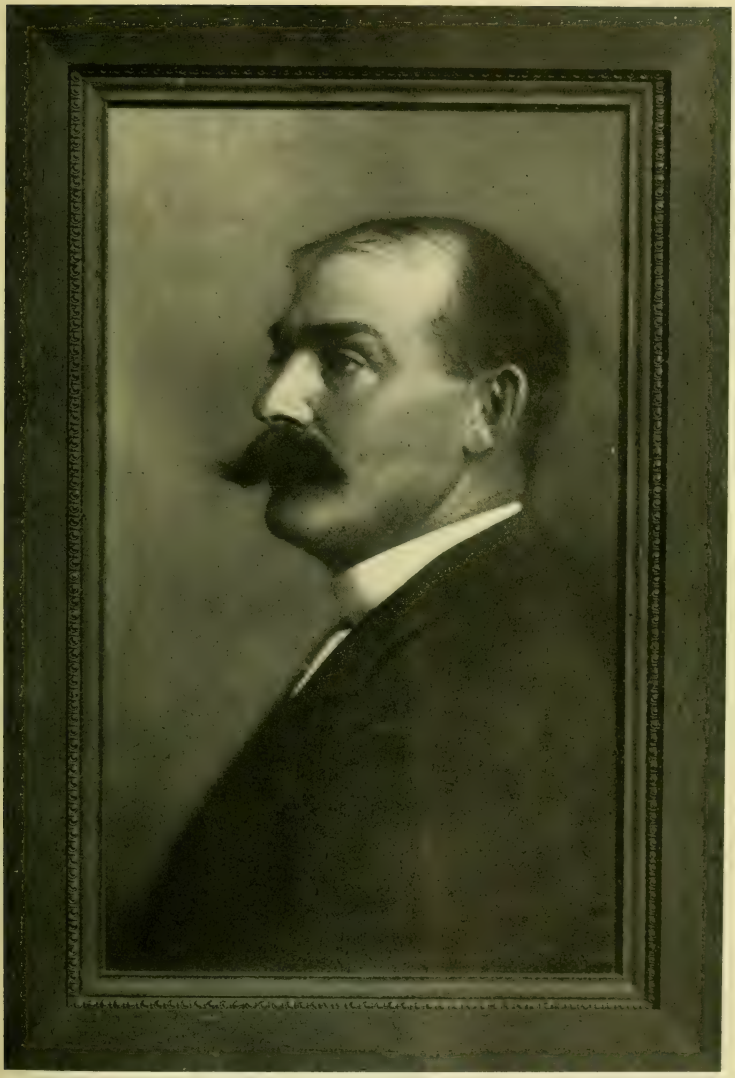
The White City of Chicago will be eclipsed in beauty by the Rainbow City, the experimental coloring of the staff on the various buildings disclosing the possibilities of the prismatic effects to be wrought by the artists before the gates are opened. The exposition will offer great opportunities to the amateur photographer because of the artistic arrangement of the buildings and the harmonious grouping of the ornaments.

C. W. Arnold has secured the concession for exclusive photography, but a reservation is made for the amateur, who is limited to the use of a camera carrying plates not larger than 4 x 5. A nominal fee will be charged for the privilege. Large and convenient darkrooms will be provided and supplies of all kinds can be purchased on the grounds.

Every amateur is sure to make a snap of the Electric Tower at the Court of Fountains, a massive structure, rising three hundred and seventy-five feet

NEGATIVE BY W. E. PALMER. ON THE LAGUNA. (*Salon Picture.*)

in the air. Niagara Falls, but a half-hour's ride from the exposition, is another feature not to be overlooked by the enthusiastic amateur. The accompanying illustration made from a photograph by Mr. Conrad L. Baer, a well-known amateur of Buffalo, shows one of the buildings in process of construction. The picture was taken in December, but because of the open winter much progress has been made since the view was taken. The Director-General and his staff, as well as the Midway concessionaires, are confident of opening the gates on May 1st with the work substantially completed. The Midway is much larger than that of Chicago, and represents an investment of over a million of dollars, having more novel features than have ever been presented before in the United States.



NEGATIVE BY A. F. PROCTOR

OUR MONTHLY PORTRAIT.

THIS PORTRAIT WAS EXHIBITED AT THE SALON AND ATTRACTED MUCH ATTENTION.

STUDY THE LIGHTING AND POSING EFFECTS.

CAMERA CRAFT

ISSUED MONTHLY BY

THE CAMERA CRAFT PUBLISHING COMPANY

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If your photographic dealer does not sell "Camera Craft," kindly send to us his name and address. We will see that he is supplied.

WE WANT THE CONVENTION

California has made but little effort to procure the Convention of the Photographers' Association of America in the past, but from every indication at present the State will make a determined effort for the Convention of 1902. The next session of the Association will occur in Detroit in July of this year, and it will be at this convention that California's fight will be made.

The importance of concerted action in presenting the claims of California to the members of the Association cannot be over-estimated. Individual effort, while of the utmost value, cannot prevail against the strong fight the Eastern cities will make. It, therefore, becomes necessary to perfect an organization of those interested in bringing the convention to California, so that the work can be pursued systematically and intelligently.

THE PHOTO-MICROGRAPHER

During recent years the relations existing between the photographer and the microscopist have been drawing closer and closer until today both are equally interested in the progress of methods and principles as applied to modern photographic processes. In California this is especially true. The San Francisco Microscopical Society is the oldest organization of its kind in the United States and the second oldest society in the world. Its library is second to none, and its membership includes the most famous scientists of the West. Many of its members are well known in the photographic world, and have done much toward furthering the interests of Western photographers. At the annual dinner of the society, given on February 20th, famous chemists sa

beside college professors, and physicians of note rubbed elbows with men whose names are known the world over as scientists.

Recognizing the intimate connection between the photo-micrographer and the photographer, CAMERA CRAFT has decided to devote a department to the interest of microscopy. This department will be in charge of one of the well-known members of the San Francisco Society, who will present each month the important events which transpire in the preceding thirty days. That this innovation will be popular no one will dispute, and CAMERA CRAFT congratulates itself upon the new department.

ANOTHER EXHIBITION

The California Club, an organization of San Francisco women known throughout the United States, has decided that artistic photography shall play an important part in its annual exhibition of the arts and crafts of the State. To this end they have issued invitations to the leading photographers of the State to exhibit, and there remains not the slightest doubt of the success of this branch of the exhibition. CAMERA CRAFT hopes that all of the photographers in the State will send in exhibits. The prospectus of the club will be found on another page.

INDEX TO CURRENT PHOTOGRAPHIC LITERATURE

AMERICAN AND FOREIGN

This Index covers all of the principal Photographic Journals of the world, and gives all articles of importance during recent months.

TITLE	PUBLICATION	AUTHOR
Artistic Landscape Photography	PHOTO BEACON	*H. A. Hodges*
Art Photography	BRITISH JOURNAL OF PHOTO.	*James Craig*
Backing Plates	PHOTO. TIMES	*E. Edwards-Ficken*
Bird Photography	WESTERN CAMERA NOTES	*P. B. Peabody*
Condensers in Photography	PHOTO AMERICAN	*R. S. Clay*
Development and Temperature	ENG. AMAT. PHOTO.	*F. C. L.*
Exposure Meters	BRITISH JOURNAL OF PHOTO.	*J. Cadett*
Focal Plane Shutter	ENG. AMAT. PHOTO.	*E Kilbey*
Gum Bichromate Printing	PHOTO MINIATURE	
Illumination of Negatives for Enlargement,	PHOTO. MITTELLUNGEN	*Dr. Hegg*
Lantern Slides, Blue	PHOTO AMERICAN	*Basil Donsett*
Negatives, Manipulating of	PHOTO AMERICAN	*H. McBean Johnstone*
Optics of Trichromatic Photography	BRITISH JOURNAL OF PHOTO.	*H. Raeburn*
Photography in Color	PHOTO. MITTELLUNGEN	*Dr. Kaiserlinn*
Platinotype Printing	PHOTO. TIMES	*C. Lamoutte*
Platinum Residues	ENG. AMAT. PHOTO.	*G. E. Brown*
Platinum Toning	PHOTO. MITTELLUNGEN	*P. Hannecke*
Portrait Posing and Lighting	PHOTO BEACON	*Prof. J. H. Vanderpoel*
Pyro Development	PHOTO. TIMES	*C. E. Fairman*
Pyro Development	PHOTO GAZETTE, Paris	*E. Wallon*
Retouching Desk, To Make	PHOTO AMERICAN	*E. W. Hawes*
Sepia Paper, Eastman's	PHOTO BEACON	
Sky and Landscape	PHOTO. TIMES	*W. Thomas*
View Meter, Making of a	PHOTO AMERICAN	
Zero Plate Photography	PHOTO. TIMES	

BOOKS AND MAGAZINES.

CONDUCTED BY DR. H. D'ARCY POWER.

AMERICAN JOURNALS.

The Photo Era has some interesting articles for the general reader, notably Mr. C. F. Stiles' article on a journey up Mount Washington, and the very good account of the Moqui Pueblos by A. C. Vroman. Otherwise, in the matter of information to the working photographer the number is scarcely up to the average of the journal.

The Photographic Times — W. Thomas writes on "Sky and Landscape," and with much justice scores the craze for sunset pictures, especially when it is evident that the landscape was taken at noon. The writer advocates the taking of two negatives of the same scene, one timed for the sky, the other for the landscape. C. E. Fairman writes on "Pyro Development," and advocates a weaker solution than is generally recommended; moreover, he is in favor of using the pyro dry. The formula advised consists of sulphite, one dram; soda, half a dram; pyro, five grains; water, six ounces, to which six drops of a ten-per-cent solution of potassium bromide is added. It will be seen that this is about half the strength of a normal pyro developer. A. C. Lamoutte writes at length on "Platinotype Printing," and quotes most extensively from the recent article in CAMERA CRAFT. Professor E. Nipher writes further particulars as to the method of making photographs without a darkroom, by means of reversal, and the subject grows in interest and practical importance. E. Edwards-Ficken describes a method of backing plates whereby much labor and trouble may be saved. Taken as a whole, this is distinctly a good number of the *Photographic Times*.

The Photo Miniature for February is devoted to the gum bichromate process, and is a most useful and interesting number. It is a distinct gain that the writer of the essay is not too much of a devotee to be blinded to its limitations, and is free to confess that the process is not applicable to all fields. This is undoubtedly true.

As an introduction to the process we know of nothing better. Every beginner should read it, and, if desirous of working by formulæ instead of by trial and error, he may supplement the instruction here given by a perusal of Henry Wenzel, Jr.'s paper in the *Photographic Times* Annual of this year, or the work entitled "Modern Pigment Processes," by H. J. Abbott.

Western Camera Notes — The Rev. P. B. Peabody writes at length on the method and apparatus of photographing birds' nests. F. J. Clute has an excellent little article on "Interiors," and John Hadden some useful notes on Velox printing.

Photo Beacon is chiefly concerned with composition and printing methods. Professor Vanderpoel's second lesson on portrait posing and lighting is worthy of attentive study. Louis H. Hoyt writes on "The Making of Blue Prints," and there is an interesting account of the manipulation of Eastman's Sepia paper and its possibilities.

Photo American — H. McBean Johnstone has a most excellent article on "Manipulating the Negative" — good, practical instruction that even advanced workers may profit by. There is a short and accurate description of the manner of making a folding view meter. E. W. Hames tells how to make a cheap and useful retouching desk, and Basil Donsett describes in full the making of blue lantern slides — that is, by the cyanotype process. "The Condenser in Photography," by R. S. Clay, is a very excellent paper. This is an unusually good number of the *Photo American*.

Photographic Instruction Text, by George L. Paltridge, instructor in photography, Lewis Institute, Chicago, is all that its title implies. As a text-book of photography and a clear digest of its technicalities it is the best we have so far had the pleasure of examining. The chapter on copying is well worth the price of the entire volume. It shows a familiarity with the subject that few writers of this class of books seem to possess. *Photo-Text* Press, Chicago. Cloth, $1.25.

February *Yachting*, the Pacific Coast representative of those who "go down to the sea in ships" out of pure love of the deep, is a credit to the interest it so well upholds. The

half-tone reproductions of yachts and their owners are well printed and numerous. The former are good examples of marine photography, all by amateurs and most of them by our amateur editor, Mr. Fayette J. Clute. The reading matter is as lively and exhilarating as the sport it concerns. *Yachting* Publishing Company, 606 Sacramento Street, San Francisco.

FOREIGN JOURNALS.

Amateur Photographer (English)—S. J. Slater writes on control in development, advising, in the case of under-exposure, that the plate be well soaked in the alkali for several minutes and then the reducer added slowly until the necessary density is attained. With over-exposed negatives, on the contrary, soak first in the reducer, to which bromide has been added, taking care to agitate the dish all the time; then add the alkali until the detail is out. Those who are interested in focal-plane shutter work should read the article by W. Kilbey, which is practical and well illustrated. F. C. L. gives a series of interesting experiments on the effects of cold development with metol, hydrochinon, ortols and pyro, whereby it would seem that if sufficient time be allowed in the case of very cold development, little difference in gradation is observable. The recovery and reconversion of platinum residues is dealt with in detail by G. E. Brown.

Photographische Mittellungen—P. Hannecke writes on the platinizing of gelatine and collodium silver prints. He points out that the combined toning and fixing bath is unsatisfactory for this purpose, and advises that the prints, after being greatly overprinted, be washed free from silver and toned in a bath of

Water	250 c. c.
Potassium citrate	10 grains
Citric acid	4 grains
Potassium chloroplatinite in one-per-cent solution	10 c. c.

After remaining in this bath from three to five minutes it is fixed in a combined gold and fixing bath. The results are fine in proportion to the freshness of the paper. Dr. C. Kaiserling has a long article on "Photography in Colors." Dr. E. Hegg writes on the principles of illuminating the negative for enlargements, and declares in favor of skylight diffused by the interposition of five or six ground glasses between the negative and the source of light.

THE INDUSTRIAL ARTS EXHIBITION.

The California Club, so well known for the good work it has accomplished, will give its second exhibition of the Industrial and Allied Arts of California in the Art Gallery of the Mechanics' Pavilion from April 10th to 20th. The following circular has been issued:

The object of this exhibition is to bring articles together, for purposes of appreciation and comparsion, which show a union of utility and art. The desire is strongly felt by all interested, to bring about conditions that will "help to unite the artist and the artisan, so often widely separated by the industrial conditions of our country."

The Exhibition Committee believes that the proposed exhibition of the "Industrial Arts of California" will give publicity to the work of individuals, and will serve as "means towards obtaining a standard," and of crystallizing conditions of art growth in the State.

Articles exhibited must bear the *names* both of the designer and artisan or craftsman.

All exhibits must arrive at the place of exhibition on April 3d, 4th, 5th and 6th, 1901, and *must be accompanied by application card* issued by the Exhibition Committee of the California Club.

Exhibitors will bear all *expenses of transportation*, and will supply cases, if necessary, to protect exhibits during their display. All communications with the committee must be accompanied by postage.

Exhibits at owner's risk. The club will exercise all reasonable care, but will not be financially responsible for damage by fire or transportation. Watchmen will be on duty day and night.

All articles exhibited must have been made in California within five years.

A correct list of all exhibits should be sent in by March 30th, together with price list of such articles as are for sale, in order that they may be *catalogued*.

Address communications to Chairman Exhibition Committee California Club, Y. M. C. A. Building, San Francisco.

The Exhibition last year included newspaper illustrations, the making of books, architectural designs, furniture designs, leather work, wood carving, metal work, ceramics—pottery, textiles—silk-weaving, statuary, and this year will include also pictures in oils and water colors, artistic photography and black and white sketches.

CURRENT AFFAIRS IN CHICAGO.

CONDUCTED BY E. W. THOMAS
CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS.

Our latest loan exhibit is by three of the well known exhibitors: Edmund Stirling, Philadelphia; Herbert Arthur Hess, Northampton, Mass., and Clarence H. White, Newark, O. This is the fourth of our series, and I have induced Mr. Louis A. Lamb, financial editor of one of our Chicago papers and a member of the Society, to comment upon its value.

THE FOURTH LOAN EXHIBIT.

BY LOUIS A. LAMB.

Chicago is making rapid progress toward the ideals of CAMERA CRAFT. Less than a year ago the first exhibition of "advanced work" shown at the Photographic Salon of 1900 aroused intense opposition on the one hand and extravagant laudation on the other. No one seemed to have found the golden mean between the two extremes. Today the fourth loan exhibit of the Chicago Society of Amateur Photographers finds a reception free from either favorable or adverse prejudice, and a general wish to reconsider the verdict passed on work of the same men at the time of the 1900 salon. There is now heard none of the extreme condemnation of the "fuzzy-wuzzy"; none of the indiscriminating praise of it which marred criticisms of the first exhibition of modern pictorial photography in this city. The temper of the amateurs has become more judicial and their judgments are now more valid by virtue of the education they have received from a full discussion of the merits and defects of the "new school."

Mr. Edmund Stirling, Mr. Herbert A. Hess and Mr. Clarence H. White are the men of the present loan exhibit in Chicago, as they were the central figures of the salon, but they are not now under the limitations of hanging space which, at that time, made it well nigh impossible to form correct generalizations as to their qualities and powers. Mr. Stirling now shows fifty-eight prints, Mr. Hess one hundred and Mr. White fifty-five. At the salon of 1900 they were restricted to ten each.

The salient impression conveyed by Mr. Stirling's work is that of power and effect achieved by means of pure line. Nowhere in the modern school can any man be found who is more sensitive to the value of the linear element of photography. He is the Whistler of the craft. Of all men he knows best how to differentiate masses into their essential and non-essential lines, and he rejects the non-essential with a certainty which is remarkable, considering the difficulties which arise to defeat the wish and will of camera workers. And it is no less a triumph to be unfailing in the rejection of what is trivial than to be constant in the choice of what is great in a photographic subject. "Bad News," "In Weariness of Spirit," "The Old Wedding Gown," "The Bowl of Water," "Woodland Voices" and many other familiar works illustrate Mr. Stirling's exceptional sense of pure line in photography. He is at heart an etcher but he chooses to work with the camera rather than the point. His work is of the first rank in photographic didactics. It ought to be carefully studied by every photographer.

Mr. White, *per contra*, is a lover of ideas rather than of the means and media of expression. He does not regard beauty in the abstract. Everything becomes concrete in his hands. His work is more original, more literary than that of his fellow-exhibitors. It has some great virtues and some faults more grave than those of the other men. If Mr. Stirling imitates Franz Hals in "The Fellow of Balliol" and Rembrandt van Ryn in other works he has the merit of choosing masters of the highest rank.

Mr. White, similarly, follows in the pathway of the preraphaelite brotherhood and seems to accept as virtues some of the conspicuous vices of that erratic school of medievalism. It is difficult to defend imitation of Dante Rossetti though imitation of Rembrandt and Franz Hals may be even commended. In all his work under the preraphaelitic influence Mr. White shows ill-directed, if not wasted effort. But when he abandons imitation and is himself he shows us works of surprising originality and force. He understands the principles of contrast and employs them in a way far removed from the academic usage. He correlates lights and darks most effectively and he has a fine sense of the

three dimensions of space. His prime virtue, however, is that he evolves new ideas in prolific succession. Where he expresses them in his own natural way his results are well-knit, well-felt and good; but where he borrows modes of expression from the ultra-affected Rossetti school of art, they vanish and leave no worthy trace.

Study White carefully for what he can teach you about the proper adjustment of subjects to the spaces they occupy and let him suggest possible motives for your own work. That sums up his teaching capacity. He is strong in what may be called the propagation of an idea — his best work has in it some germ which in the imagination of the beholder takes root and thrives and comes to fruitage in the virgin depths of another heart.

Mr. Hess does work of high excellence whenever he is content to express himself in the language of to-day. He has a penchant, however, for idyllic Greece and its fauns, garlands and pipes, with which "properties" he vainly strives to make old Hellas live again. Work of this kind is usually too full of inconsistencies and anachronisms to be safe from the perils of the grotesque. Nevertheless Mr. Hess is a consummate technician and his exhibitions are always valuable. More sincerity and less stage effect would greatly improve the quality of his product.

We are looking forward with a great deal of pleasure to our next exhibit, which will consist of work from Mr. Jos. T. Kieley and Mr. Chas. I. Berg of New York. Mr. Kieley has promised to visit us at that time, and we expect it to be a red-letter event.

Preparations are being made for the spring campaign in photography, and dealers report an increase over the last year in sales of better outfits, especially lenses. The best seems to be the watchword, and a number of fine outfits have recently been secured by those to whom the pastime has become a serious reality and a good outfit an absolute necessity.

Our latest effort to provide something new is a Committee on Chemical Research, from which we expect some valuable information during the coming season. The members were selected from those who make that part of photography a study.

NOTES.

Messers. A. O. Bradley and E. M. Davidson have fitted up a studio in Alameda.

Amateur photographers who have trouble with their darkroom lamps should see the new Lionel electric ruby lamp. It is a treasure.

The Mellen Manufacturing and Publishing Company of Chicago presented CAMERA CRAFT with one of their new pocket tripod stays recently. Since its receipts several of the staff members have fallen out. All wanted the instrument at once.

The Photographic exhibition held under the auspices of the Starr King Fraternity in Oakland on February 14th was most successful and will undoubtedly be repeated.

O. M. Boye, the well-known photographer, left for Europe on February 9th.

The Channing Club of Berkeley will give a photographic exhibition April 11th and 12th. Communications should be addressed to Miss Jessie Milliken, 2601 Parker Street, Berkeley.

A. W. Rice, the Haywards photographer who won the second prize, Animal Class, at the recent salon, has also been awarded a prize in the competition under the auspices of Steelton (Pa.) Camp, Woodmen.

The first prize landscape at the salon was printed on a California paper, Platinograph. This paper is making many friends, and every amateur should try it.

Mr. William Wolff, of Hirsch & Kaiser, in a letter to the editor, grows enthusiastic upon the business conditions of the South. "The outlook for the coming year," says Mr. Wolff, "is splendid."

The Multiscope and Film Company, Burlington, Wis., makers of the well-known Al-Vista panoramic cameras, has recently issued an advance announcement for the spring of 1901. The announcement describes two new cameras which, from the brief particulars furnished, will undoubtedly be the most popular instruments this firm has yet placed on the market.

Have you tried Rotograph paper yet? It will pay you to experiment with it. Sunset Bazaar, 43 Third Street, San Francisco. —(*Adv.*)

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY FAYETTE J. CLUTE.

SHADOWS VERSUS REFLECTIONS

A correspondent asks how he can get the long reflections he sees in a certain marine photograph. He says if the sun is directly in front of the camera, so that it casts the "reflections" towards him, he gets fog in the negative.

His mistake is a common one that a little careful observation would dispel. Shadows and reflections are entirely different things. Shadows are a reality. They are the same viewed from different standpoints. They lie in a certain direction, depending on the position of the source of light and the object casting them.

Reflections are a phenomenon. No two persons can see exactly the same reflections. They change with every slight alteration of the view point, or of the surface which reflects them. They are independent of the position of the source of light.

Any body of water, fairly smooth, will give reflections, excepting in cases where a film of dust is carried on its surface. The smoother and clearer the water the more distinct will the reflections be, and will always extend from the object towards the camera, regardless of the light, be it direct or diffused.

CAUSES OF MISTAKES

It is not so much his lack of photographic knowledge, as is generally supposed, that causes the novice to make so many mistakes. For instance, take that part of the process in which he invariably shows his 'prentice hand by his nervousness — the making of the exposure.

He has simply failed to reach that stage where he can open his shutter, focus his subject, insert the proper diaphragm, close the shutter, insert the holder, withdraw the slide, make the exposure, return the slide reversed, and then remove the holder, doing it all automatically, in proper rotation, with hardly a thought. Once he acquires this knack he is in a position to give his attention to the arrangement of his subject, the length of and proper moment for the exposure, subjects which often require serious consideration.

Arranging the subject on the focusing screen is another point at which his want of experience is a greater disadvantage than his lack of knowledge or good taste. To the practiced worker the inverted position of the image upon the ground glass goes unnoticed. It presents no difficulty to him, while to the beginner it is a source of confusion that renders any serious study of its lines well nigh impossible.

The sooner the novice can rise superior to these and similar detractions the earlier will he be in a position to do good work. He should be slow and systematic in making his exposures, and not begrudge the time spent in studying the image on his focusing screen. Then his nervousness and indecision will gradually disappear.

SETTING UP A TRIPOD

Speaking of nervousness, I watched a little lady set up her camera opposite a few of the swans quietly sunning themselves on the edge of the lake at the park a few Sundays ago. Her nervousness increased as preparations progressed, until, after withdrawing the slide and attempting to reach the bulb hanging from the shutter, she took a step forward, and struck one of the tripod legs with her foot, upsetting the whole thing.

This is another example of the value of being systematic in the little things. Always set up your tripod with the legs in a certain position relative to the camera, and you will find yourself stepping around them when necessary, without seeing them or giving them a thought. The right position is with one leg pointed directly forward in a line with the lens, while the other two will come one on each side of your feet as you stand facing the focusing screen.

A HINT FOR THE BEGINNER

Talking about learning to use a camera, did you ever realize that it is comparatively easy to learn what your camera lens and plate will do, but that where the hard work comes in is in learning what these useful articles are not capable of doing?

If we were only more careful in learning the limitations of our apparatus and of the processes we employ, if it did not take so

many demonstrations to impress each lesson of the kind upon our minds, how much we could save in time, trouble and expense.

Take bromide enlarging as an example. The average amateur spoils sheet after sheet trying to find out what amount of light the paper will not stand without giving fog. Were he to test how much it would stand he would waste but one sheet doing it.

Let him handle the first sheet as carefully protected from light as an ordinary dry plate, gradually increasing the amount of light the paper is subjected to as sheet after sheet is used, and he will find out just where to draw the line, with only the loss of the last sheet and the time used in printing it.

SULPHITE OF SODA

I found one of my amateur friends having trouble with his developer the other day. In spite of the bottle being well filled and tightly corked, it became discolored in a very few days. The rapidity with which his solution of sulphite of soda turned red Litmus paper blue gave me a key to his difficulty. His sulphite of soda was strongly alkaline.

Did you ever take the trouble to test your own and see if it was as it should be — neutral, or nearly so? It is next to impossible to get a perfectly neutral article, but it should be only slightly alkaline. This slight alkalinity can be corrected by adding to the solution a small lump of citric acid.

It combines to form citrate of soda, which acts as a restrainer; hence an excessively alkaline sulphite, even if made neutral in this manner, is not to be recommended. For the same reason, an excess of the acid over what is required should not be employed, as it will combine with the carbonate in the alkali solution when the two are mixed ready for use.

OUTDOOR PORTRAITURE

One of my readers sends in several portraits made with the aid of the appliance described in this department in the January issue. I have answered his request for criticism in a letter, but as the main fault is one that nearly every novice at portraiture falls into I will repeat myself here.

In bust portraiture it is almost a rule that, where the sitter faces the camera squarely with the shoulders, the head should be turned slightly to one side, and where it is desired that the subject should look directly toward the lens the body should be placed at an angle to the camera. If I have not made this quite clear, a glance through the family album will show you what the practice is. In trying to avoid this "face-front" position you are in danger of committing a still more serious error. When asking your sitter to direct his eyes toward a certain point at the side, be careful to see that he turns his head to that position or nearly so. Nine out of ten will simply roll the eyes around so as to bring the point indicated into their line of vision, giving the portrait a very undesirable expression.

POSITIVES, NEGATIVES AND PLATES

A correspondent who has been trying to reproduce a negative by making a positive from it, and from this making another negative, sends prints from the original negative, the positive and the duplicate, and asks if I can tell the cause of his failure.

His trouble was occasioned by developing the positive too far and blocking up the detail so that it did not get a chance to reproduce itself in the negative made from it.

The point I do want to mention is the confusion one may cause by the misuse of photographic terms. He says on the back of one of the prints: "A print from a plate, from a negative, from a negative." Now, I know by his letter that he means a print from a negative, from a positive from an original negative. Once a plate is developed it becomes either a negative or positive, and to still call it a plate is only a little worse than to call a positive a negative simply because it is not a print on paper.

A HINT REGARDING PLATE-HOLDERS

A correspondent tells me of a way he has of avoiding the necessity of taking a holder out of the case or camera in order to see if the side of the slide turned outward has the word EXPOSED on it. He cuts a small nick in the same side of the handle of the slide and the trick is done. If the nick side is out the plate has been exposed.

Years ago I found a man with a series of nicks cut on the edge of his holders, and learned that they were used instead of the ordinary "1, 2, 3" we mark holders with, because in filling the holders or removing plates he could always tell by feeling just which one he had hold of. He was a telegraph operator, I judged, because, as near as I can remember, his nicks were on the dot-and-dash system.

The idea is, could not the two systems be combined? Cut one nick for No. 1, two

nicks for No. 2, and so on up to No. 4—one long nick followed by the same series of nicks would do for Nos. 5, 6, 7 and 8, and a still longer nick, followed as before, would answer for the other two holders. I am going to whittle the handles of my own slides to that extent, anyway.

URANIUM INTENSIFIER

This intensifier gives very vigorous effects and great increase of density. Its chief advantage lies in the fact that a weak solution of any alkali—ammonia, for instance—will remove its effect either wholly or locally, as it may be found desirable to employ it. Following is its formula:

Uranium nitrate	40 grains
Potassium ferricyanide	40 grains
Ascetic acid	100 minims
Water	10 ounces

Filter before using. Acid is necessary, as pointed out by Chapman Jones a few years ago. Almost any kind will answer. The wash water used after intensification should also be made slightly acid.

SPOILED VELOX PRINTS

One of the many girl amateurs in San Francisco wishes to know if she can improve the tone of Velox prints that came out with a greenish brown color in the blacks.

The writer has had but little experience in this line, other than to purposely underdevelop prints in order to obtain the tones resulting from after-intensification by the uranium method, but a writer in one of the foreign journals says that greenish prints can be toned to a good blue-black in an ordinary gold toning bath. We all get unsatisfactory tones in Velox paper occasionally, and this might be worth a trial.

EXPERIMENTS TO TRY

If any of my readers desire to experiment and wish for something tangible to start with, all they have to do is drop me a line stating by what process they wish to begin their troubles. There is, in negative making for instance, the combined fixing and developing process, using pyrocatechin as a developer. There is a method of developing a negative right through to the glass side, removing the image formed, exposing the unaltered haloids which remain and then developing this image, getting a positive thereby instead of a negative. There is a way of making a negative from a negative by over-exposing a plate, by contact, long enough to get complete reversal, and a number of other things of like character that I find in my books and magazines that, although details are given, I can not advise concerning, because I have not found time to try them.

Now, if your taste lies in this direction, and you have the time, write me. If there is any particular line you wish to follow, say so, and I will hunt up something published on the subject, send you details, and be more than pleased to hear of your results.

THE PROFESSIONAL.

CONDUCTED BY O. V. LANGE.

MAILING PHOTO PRINTS.

Many times do we hear the remark, "Now that I have the pictures I do not know how to send them safely through the mails." Therefore, much diversity exists as to the style, size and weight of the packages sent. Some seem to think that photographs must be boxed and nailed up; others that a thin piece of wrapping paper is sufficient. The first pay about ten times more for mailing the package than is at all necessary, the other extreme, in their desire to save a stamp or two, are willing to risk losing the photographs. The make-up of the package should largely depend upon the class of pictures to be sent. The ones giving the least trouble are those mounted on the regular portrait mounts which are stiff enough to send in the ordinary delivery envelope, but even these would be safer if two are placed in the envelope face to face with several folds of soft, tissue paper between them. Better still, if the pictures are printed on any of the modern gelatine papers, such as Solio or Velox, or are otherwise valuable prints, place a piece of canton flannel doubled so that the knap will protect the face of the prints. Most of the papers in vogue at present are scratched and chafed much more easily than is usually supposed.

When the mount is rather thin and cannot be conveniently rolled, lay the print between two pieces of millboard so cut that the grain of each will run crosswise to the other; then wrap in a stout paper. This is really the safest way to send a valuable portrait, as the ordinary handling in the mails will neither

break nor bend them. For unmounted prints a good and safe way to send them is in a cardboard tube. This is easily made by rolling a piece of strawboard, bending it into shape around a broom-handle, fastening the loose end with a binding strip or a piece of mucilage-covered paper. The unmounted prints shoved into this tube will go quite safely, though a perfectly round piece of light wood in the tube will not increase the postage much and be absolutely safe, as the prints cannot be creased. When a large business is done in sending unmounted prints, the mailing tubes can be had from the paper-box factory very cheap.

There has lately been put upon the market a mailing envelope containing corrugated cardboard. It is very light, and may be used to advantage either for mounted or unmounted photos. There are a few rules to be observed when mailing photos, which come under the head of third-class mail matter, and may be sent at the rate of one cent for every two ounces. No writing of any kind is allowed in the same package, except the name of the sender.

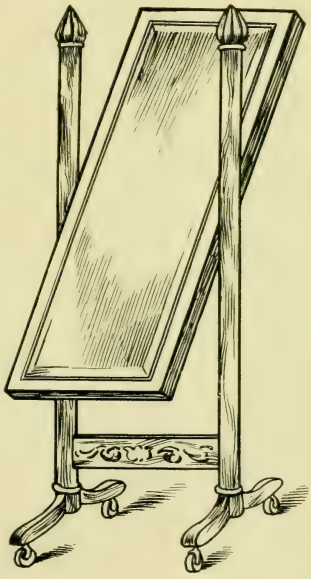
Mail matter of the third-class must be so wrapped or enclosed that it may be readily examined without destroying the wrapper, otherwise it will be subject to first-class rate, two cents per ounce, as will all articles enclosed in sealed envelopes with clipped ends, sides or corners, or in boxes with covers secured by nails and all packages the wrappers of which are secured by postage stamps. When there is only one or two mounted, or several unmounted prints, it is best to pay first-class letter postage at the rate of two cents an ounce, as this class goes quicker and usually safer.

HOW TO KEEP YOUR SITTERS QUIET.

Here is a suggestion that the portrait experts of the city might take up and experiment with, and from valuable data thus accumulated give to the world a useful accessory of practical utility in the operating room.

It is well known to operators under the skylight that all usually goes well until the eye-rest is set before the sitters, or they are told to look at some uninteresting object in the room; how intelligent and bright features will often unconsciously acquire a meaningless and unnatural stare.

This may be entirely avoided by the use of a very simple device. Arrange a mirror in such a manner that the sitter can observe his or her own expression in the glass, and the trick is done. Not only can the want of expression in the features be remedied, but ladies may see to arrange their draperies as they wish them to appear in the finished picture.



THE MIRROR.

How many times does it become necessary to make another sitting, with the attendant loss of time to both operator and sitter, because of an ungraceful fold, a ribbon or lace out of place?

The mirror should be placed in a swinging frame, supported on casters, as shown in drawing, so that it may be placed in the rear of and slightly to one side of the camera stand, or any other place where it may be most convenient at the time.

For sitters to see themselves as they wish others to see them, and knowing positively that everything is as wanted, the features must reflect contentment and satisfaction; therefore, no waste of plates, time and worry. The cost would be but little to the experimenter, for the size of the mirror need only be eighteen by thirty inches.

Who will be the first bold and daring innovator?

When framing photographs considerable artistic judgment is required to harmonize the print and the frame. We pride ourselves on the manner in which we do this work, and would like to have you bring us one of your prints to frame, so that we may demonstrate our ability to you. Kennedy-Rabjohn Co., 21 Post Street, San Francisco. —(*Adv.*)

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The regular monthly meeting of the California Camera Club was productive of more than usual pleasure, the program being an excellent one. After the entertainment Byron D. Bent, Chairman of the Entertainment Committee, acted as host at an informal reception to the talent, who have so kindly assisted the committee in its work. The reception took place at the Press Club and a pleasant hour ensued.

LOS ANGELES CAMERA CLUB.

In spite of unfavorable weather conditions, the assembly-room of the Los Angeles Camera Club was crowded on the evening of February 8th, the occasion being the regular semi-monthly gathering of the camera devotees.

An instructive address was delivered by F. G. Shumacher on the "Treatment of the Subject in the Studio." Successful photographers, he declared, must be good judges of human nature. A number of good and bad pictures were thrown on the screen to show the effect of proper and improper pose in relation to light and shadow.

Over fifty lantern slides were shown, having been received from the Interchange. Among them were several beautiful Swedish views.

The fun of the evening was supplied by Mrs. L. W. Harmon and Miss Alice J. Stevens, who rendered several vocal selections of their own composition.

SAN DIEGO CAMERA CLUB.

The San Diego Camera Club gave a delightful reception and lantern-slide entertainment at their rooms in the Fisher Opera House block on January 21st. Two hundred and fifty invitations were issued, three to each member, and nearly all those invited were in attendance. President Carpenter introduced Eugene Daney, whose familarity with French made the explanation of the set of lantern slides from the Douai Camera Club very interesting. Following the French set were a hundred slides belonging to the prize English Lantern Slide Interchange.

Whether you want to buy a Kodak or have some printing done it will be well to see

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For Sale—A newly furnished photographic gallery in San Francisco. Cause of selling, parties desiring to leave the city. Can be purchased at a very low price. Address, C. P , CAMERA CRAFT office.

$350 Cash—Will buy a modern, well-furnished Studio in the Mission, San Francisco; $650 worth of apparatus and furniture in sight. For particulars address L. D. Hicks, 220 Sutter Street.

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Note: — Subscribers who do not receive Camera Craft promptly will confer a favor by sending a postal card to this office. The omission will be supplied and an investigation made. The editors will, at all times, be ready to carefully consider manuscript and photographs. When possible, all manuscript should be typewritten.

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CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. II. SAN FRANCISCO, CALIFORNIA, APRIL, 1901. NO. 6.

Yacht Photography

by Fayette J. Clute

Illuftrated by the author

The photographing of yachts under sail is, perhaps, one of the most fascinating employments to which one can devote his time and apply his camera. The difficulties which lie in the way of success in this line only add to the pleasure of the pursuit. The photographer must not become discouraged simply because his results do not come up to the standard of the magnificent yacht studies shown in the art stores. These few good examples are secured under most favorable conditions, and even then are a record of many failures and innumerable less satisfactory negatives.

One of the best professional marine photographers on the Atlantic coast admits that he has followed races for three days in his own tug without making an exposure. On the fourth day conditions favored him, and he secured a number of fine pictures. The statement is often made in articles dealing with this subject that the photographer can hardly under-expose his plate in marine work, but whoever was first responsible for this bit of misinformation could have had but little experience in yacht photography, while those who so blindly copy this advice must have had still less. When it is taken into

A NARROW ESCAPE.

consideration that in order to get a negative that does not show the effect of motion when the yacht is square on with the camera, close hauled in the wind and near enough to fill the plate, the shutter must be set at a speed of one-sixtieth of a second (absolute, not simply indicated), it can easily be seen that a rather large stop must be used. If the camera is being manipulated from the deck of another boat or tug a higher speed will be necessary. If working from a boat going in the opposite direction a still greater increase in the speed of the shutter must be made.

At this speed little stopping down can be done, and for that reason a lens of short focus must be employed. A large stop with a long focus means a limited depth of focus, and as no opportunity of adjusting the focus is possible, it is better to sacrifice the increased size of the image for the additional depth obtained with a lens of medium focal length. Bolles of Brooklyn uses a ten-and a-half-inch Dallmeyer stigmatic. Our own veteran yacht photographer, Gibbs, has always used a Beck of rather short focus, about nine inches, I should judge. In my own work I use a Goerz lens listed for the next size smaller plate.

Any ordinary camera is suitable, the main thing being a good rigid bed. The instrument I use is a Blair of the reversible back pattern. Mr. Gibbs employs a camera of his own construction, but I believe that rigidityof the back and bed are the only special advantages claimed. The *sine qua non* in yacht photography is a good reliable finder, one that is in accurate adjustment with the plate. The particular form is simply a matter of taste. A wire frame the size of the plate, erected over the camera front with a pin driven in the center of the back to be used to sight from, is employed by some of our Eastern

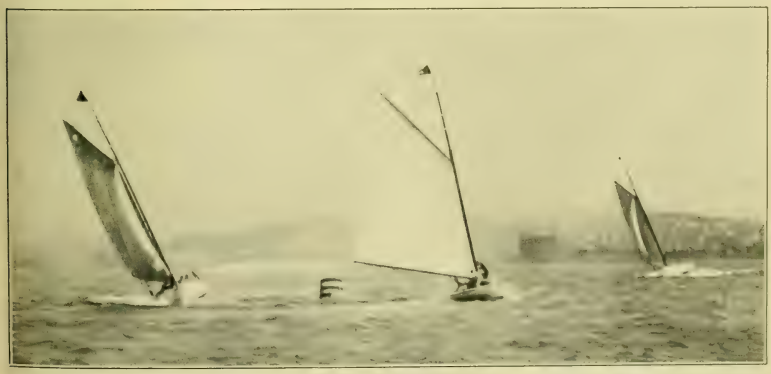
workers. Others use the globe sighter, and some employ a simple form of box-finder, fitted with a ground glass that bears a certain relation to the plate as to size. My own is of this pattern, 3¼ x 4¼ for my 6½ x 8½ plate. This ground glass should be well protected from light. I form a rough hood from a piece of black paper, and hold it in place with a rubber band slipped over the back of the finder.

For those who find it difficult to hold the camera level, a good, quick-acting level should be fitted to the camera in such a position that it can be easily seen. Even "drunken" architectural subjects are not as objectionable in a photograph as a yacht gracefully sailing down hill. There is a strong tendency on the part of even old workers to incline the camera to correspond with the angle of keel taken by a boat sailing on the wind. As this angle is often as great as forty-five degrees from the perpendicular the danger of getting the water-line at an angle on the plate is a very serious matter.

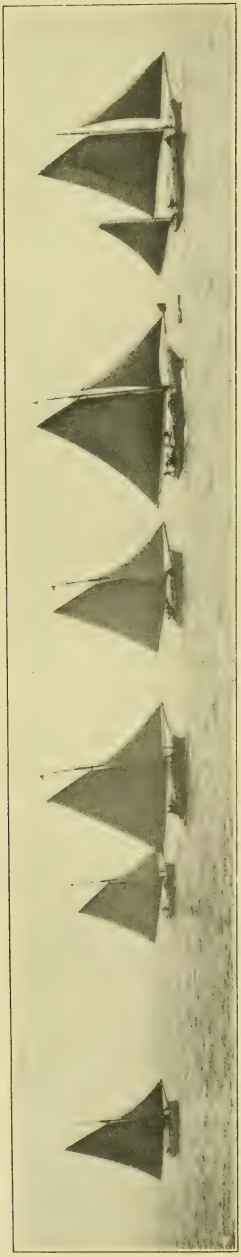
Correct timing must be studied. The same exposure that would prevent the sails from coming out in the finished picture as black paper when exposing against the sun, would, if made in the opposite direction, give, under certain conditions of the sky, white sails that would simply lose themselves in the white paper sky. Of course, a great deal can be done by judicious development, and for this reason I prefer a plate of medium rapidity. Seed's 26x or Cramer's Banner are both good plates, and for our own bay and its peculiar atmospherical conditions Carbutt's 27 Ortho is an excellent plate.

Any familiar developer will give good results if the timing is at all correct and development is not forced at the beginning. In my own work I use the old Passavant formula for pyro soda. Seed's formula is almost identical with it, but Cramer's Banner and Carbutt's Ortho will require a developer somewhat stronger in pyro than the Seed 26x. Plates exposed on a day when the atmosphere is clear and the sun shining bright should be developed so as to secure the maximum amount of softness, while those that are exposed on a day that is slightly hazy or overcast will require exactly opposite treatment.

Groups of yachts are more pleasing and more desirable than single vessels filling the plate. Good grouping can often be secured by watching the finder



ROUNDING THE BUOY.



THE START.

closely, and where several yachts are included in the view there is more of that breadth and charm of the sea to the picture. It is evident that we are, in a great measure, at the mercy of circumstances. We must take our yachts as we find them, but, knowing what position of the boat relative to the camera is most likely to give a good picture, we can often save ourselves a few plates that will be worse than useless if exposed when conditions are not auspicious.

A schooner rig is best taken from the leeward side, from a point just forward of amidships, when close hauled on the wind. The sun should be nearly dead ahead or on the opposite quarter. In this position we are able to register all the sails. Should the sun be directly opposite us, a trifle longer exposure must be given to prevent the sails from coming out too dark against the sky. Never work against the sun unless it be well up, as its rays, striking the water at a narrow angle, give the tips of the waves a peculiar appearance that suggests floating ice in the finished picture. Very effective pictures can often be made of this class of yachts when sailing before the wind, wing-and-wing, with the sun kept well to either quarter. Do not attempt to photograph a schooner-yacht from the lee bow when the sheets are slack and the sun dead ahead or on the leeward side, as a dark, hard shadow will be cast on all but the forward sail, entirely killing the effect of roundness.

The same rules apply to the yawls. This class of boats is, perhaps, the most unsatisfactory of the pleasure craft to photograph. In the usual cruising rig the sails seem to be inadequate and far from pleasing in curve or line, unless photographed in a certain position. Taken from the leeward side, forward of amidships, when heeled to a good breeze, with sun just a bit to windward, will give the advantage of the increased perspective, and at the same time show the curve to the sails that is so necessary to make a pleasing picture. If sheets are slacked well away save your plate. You will get lines that cannot be called good even in pictures of yachts. A yawl photographed from a point well forward, when close hauled in a good breeze with the sun dead ahead, will give a picture full of action, with a beautiful bow wave, but all the characteristics of the yawl are lost. To all appearances it may be a

IN A BUNCH.

yawl or a sloop. Never waste a plate on a boat of this class from the windward side. Occasionally a good picture can be taken from this point of view of an extreme light-draft yacht of the racing type, but never of a yawl.

The best subjects for the camera are, no doubt, the sloops. They will give good pictures in almost any position. The most pleasing results are obtained when sailing full and by in a strong breeze during the summer "trades," with a head lighting. The jib will stand out in good relief from the mainsail, giving a picture full of life and action, with good lines and that pyramidical form of composition that makes the picture pleasing to the eye.

A caution can be inserted here; never make an exposure unless fully

NEGATIVE BY E. R. JACKSON. BEFORE THE BREEZE.

satisfied that the results will repay you. Do not snap at a boat hoping your luck will give you something. It never does in this class of work. The temptation is great, but it must be resisted. Never make an exposure on a yacht unless there is some indication of movement; try to get that spread of sail and foam at the bow that shows action and gives the effect of life and motion.

Our own bay being an ideal location for yachting, the wind rarely failing, our yachts do not carry the amount of sail found necessary in less favored waters. Spinakers, water sails and racing kites are only to be seen on race days, and then are rarely used. Cruising rig is the rule, and even topsails are

A JOLLY GOOD TIME.

seldom brought into play. This condition of affairs is responsible for the lack of good photographs of our local yachts as compared to those shown of Atlantic coast pleasure craft.

Photographs of yachts are easily obtained. Almost any Sunday trip on the Sausalito or Tiburon ferry will give a snap at one or more of them. The end of any of the long piers will often prove a vantage ground not to be despised. Best of all is to cultivate the acquaintanceship of some owner of a good, fast yacht and make your exposures from the deck of his vessel during a cruise in squadron. The illustrations which accompany this article, at least such as are my own, have all been made in this way. Any one following the directions I have given can do equally as well if not better.

TAKE A TRIP TO THE NEW WONDERLAND THIS SUMMER.

By a Photographer Who Has Been There.
Illustrated with pictures by Prof. Joseph LeConte.

Although the photographers of California are unusually blessed by being within easy reach of many of the wonders of the world, I am sorely afraid that but few of the craft realize it. While there are a few who have traveled the State from one end to another, there is but little of the enthusiasm so often met with in the ranks of the workers of the East. Nature lovers there are in plenty, but how often do you meet a photographer who has visited the Yosemite, the big trees or any of the wonders of the West?

All of this is but preliminary to the advice I am going to give the photographer who is undecided as to his summer vacation. Take a trip to the Giant Forest, Kern and Kings River Canyon and the high Sierras. It will be

KEARSARGE PINNACLES.

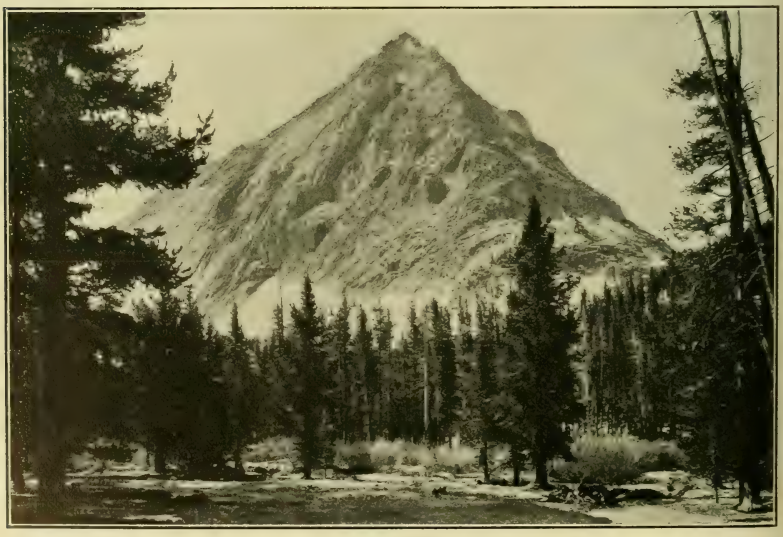
the trip of a lifetime, and, although I have been in this new wonderland for two successive years, I expect to return this year.

Now to reach the Giant Forest you take a Southern Pacific train from San Francisco or Los Angeles to Visalia, Tulare County, and from there by Broder & Hopping's Giant Forest Stage Line to the Giant Forest. Conservative estimates place the number of trees at 20,000, but an actual count will probably increase this number. This forest contains not only some of the largest trees in the world but some of the tallest. General Sherman, near Broder & Hopping's permanent camp in the forest at Round Meadow, is now supposed to be the largest tree in the world. This forest in beauty and

MT. BREWER FROM BULLFROG LAKE.

grandeur is unsurpassed by any other big tree forest, containing, as it does, so many sequoias and abounding in beautiful meadows covered with the flower for which this part of the Sierras is famous.

This forest contains many natural curiosities, but the General Sherman, 370 feet high and 34 feet in diameter, with an age of probably 5000 years, is



EAST VIDETTE.

always the object of most interest. Parties spending three days or more in the forest will be shown the General Sherman, the beautiful meadows, among which is Crescent Meadow with its beautiful flowers; the Fallen Monarch, a sequoia which visitors can measure for its face 310 feet; the Wolverton log in another meadow; a house in a big tree where a trapper, long since dead, made his winter home; and Moro Rock, with its magnificent dome standing over 4000 feet above the valley of the Kaweah.

From this dome you can see over the immense San Joaquin Valley, the intervening foothills and mountains, the far-away Coast Range and the magnificent peaks of the Alta Range, Mount Kaweah and the Saw Tooth Range. Then there is the room burnt out of a standing tree by a forest fire many years

VIEW FROM KEARSARGE PASS.

ago. This room measures eight by twelve feet, with a small doorway, a roof fifty feet above your head and a window high up in the wall.

Many trees and groups in this forest have been named: the Dorst, the Agassiz, the Parker family, La Grande and many others. All these can be visited in one day, leaving the camp at 9:00 A. M. and returning at 4:00 P. M., with a stop for lunch. The next two days may be spent in a trip to the beautiful Alta Meadows, situated in the granite peaks above the timber line, with a panorama of peaks, valley and forest rivalling the far-famed Swiss Alps. Here are found many of Prof. Corilles' rare flowers, and a botanist could pass the red-letter day of his life in this meadow.

Broder & Hopping's camp, situated under the Giant Big Tree, on the edge of Round Meadow, is an ideal place for a camp, with its clear, cold water and forest quiet, the bright flowers on the meadow and the towering trunks of the trees. The regular rates at this camp are two dollars a day. A cook, guides

and pack and saddle animals can be had for short trips, or trips to Kern or Kings River Canyon, costing about three dollars per diem, everything in the way of provisions, camp cots, bedding, etc., being supplied by Broder & Hopping.

Permission can be obtained to fish in the Marble Fork, Giant Forest. The fishing is good. In the Kern Canyon the fishing is unsurpassed, the fish reaching a weight of five pounds and measuring twenty-six inches in length. It is here that the famous golden trout of Whitney Creek, so noted for its color and the excellence of its flesh, is caught.

The high Sierras abound in alpine lakes, large and small. Owens Lake, fifteen miles long, can be seen from the top of Mount Whitney. The headwaters of the Kings and Kern abound in lakes, over two thousand being found in the region. The flowers are many and varied. Spotted tiger lilies, asters, lupines, darts, violets (blue, white and yellow), red and yellow columbine, Indian paintbrush and Mariposa lilies abound here, with numerous others, making this the flower garden of the world.

The meadows are one of the most pleasing features in this part of the Sierras. Coming upon them from the shade of the pine forests, with their bright flowers and vivid green, one finds them ideal camping places.

A week spent in such surroundings will gladden the heart of any photographer.

In making the trip go prepared to expose numberless plates and to be dissatisfied with one-half of them. No artist, no photographer can fully portray the nature of this wonderful country and if failure comes to the earnest worker occasionally, still he will be well repaid by his successes. If my description appears to be glowing it is but the spirit of the woods and hills bubbling up at the thought of once more visiting the stamping ground of last year.

VIEW DOWN BUBB'S CREEK CANYON.

The most attractive feature of marine photography to me is the fact that but little exertion is required to procure interesting pictures. While the landscape photographer tramps over miles and miles of territory, setting up his camera every hundred yards or so, and lugging an outfit that increases in weight with every mile of ground covered, the marine photographer can select some vantage point and calmly wait for his pictures to float by.

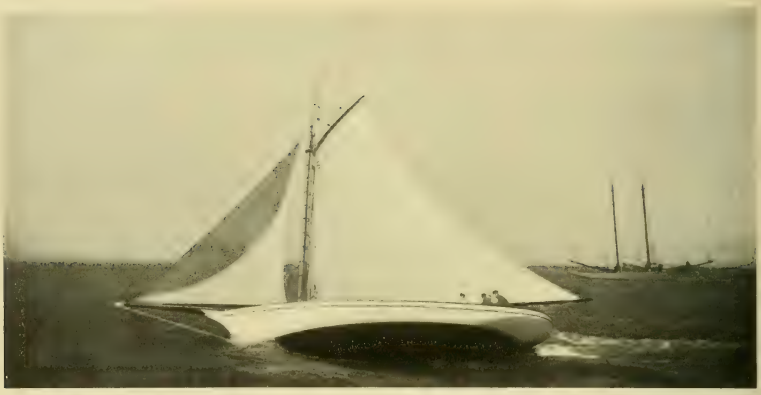
Nature provided me well so far as advoirdupois is concerned, and, although my disposition inclines toward an active life, my ambition is frequently eclipsed by a desire to take things easy. Occasionally, however, I take a trip on one of the tugs out to the heads, but it is the same thing — your pictures glide by you and nothing need be done but choose the right moment for exposing.

While many have preached of the difficulty of marine photography I think that there does not exist a branch of the art wherein lies less chance of failure. It is but seldom that I change the time of my exposure and only vary my diaphragm from f/8 to f/16.

As a hobby I do not think that any particular line of photography offers more pleasing opportunities than marine work. To one who has a love for it and all things appertaining thereto, it is a keen pleasure to preserve for after years the ever-changing pictures of the sea. The moods of the bay and ocean are as varying as the winds and never an hour passes but that the whole nature of the scene changes.

Then, too, the men of the sea are genial companions. They are

NEGATIVE BY A. A. M. CLARK, QUEENSLAND. "HIBISCUS."



NEGATIVE BY ARTHUR D. CROSS

A STIFF BREEZE.

as much interested in your work as you are, and if approached in the right manner will assist you in every way to procure pictures. My best friends are numbered among those whom I have met in my search for pictures.

Every year numbers of war vessels, both our own and those flying foreign flags, visit the bay, offering unlimited opportunities for interesting pictures. Think of the future pleasure of having in your possession a picture of some war vessel which has figured as a shining mark in the history of the world. In this work is a stumbling block for those photographers who think that a vessel looks equally well from all sides. Usually he discovers his mistake too late to remedy it by making new exposures. It should be borne in mind that unless great care is taken fore-shortening is inevitable. Pictures showing the full length of the vessel are usually the most effective, but splendid results can be obtained from a position off the bow, with the light from the proper direction. Never take a stern view of a vessel.

NEGATIVE BY ARTHUR D. CROSS.

THE BRITISH ISLES.

PRACTICAL METHODS OF RECOVERING SILVER AND GOLD FROM WASTE PAPER AND SOLUTIONS.

By O. V. Lange.

NEGATIVE BY W. E. DASSONVILLE

THOSE who have not given the subject much study may be surprised to know the large amount of precious metals that are left to go down the sink, for fully seventy-five per cent of the silver and gold used in photography may be saved with little extra work. In moderate-sized galleries and printing houses between thirty and fifty dollars a year may be recovered. In the old wet-plate and albumen-paper days this estimate would be doubled. Now all of the papers and plates are prepared in factories, so that we are confined to saving the metal in the wash water, toning and fixing solutions, waste prints and some trimmings. Even these at the end of a year will net a tidy sum, which will in a measure solve the Christmas-gift problems.

As regards the waste paper, I prefer to burn it in a stove that has been cleaned of all ashes and soot, or in an open fireplace, by placing a piece of tin in the grate to burn the clippings on. After the fire is started do not put too much on at once, for the heat will create a draught that may carry some of the charred paper up the flume. Keep it well separated, so as to have all converted to fine, gray ashes with the least amount of charred paper. These ashes should be sifted so as to eliminate any foreign matter. This operation does not take valuable time, as it can be done on a winter evening in half an hour. These ashes will contain from sixty to seventy per cent by weight of metallic silver.

The ashes, or even the unburned paper waste, can be sent to the refiner, who will, at the end of three or four days, give the value of the assay in coin, less the cost of reduction.

As we do not use the old-fashioned silver baths for sensitizing paper and plates any more, I will pass on to the gold-toning solution; this, when it has ceased to be active, still contains a considerable proportion of precious metal. Where five or ten dollars' worth of gold is used a month nearly one-half can be saved. The method I found to be most practical is to use a five-gallon keg with a faucet one-third from the bottom to draw off the separated liquid. When the keg is nearly full of waste bath, precipitate the gold by adding, little by little, as long as a brownish purple precipitate takes place, the following filtered solution:

One ounce of sulphate of iron dissolved in four ounces of water and one-half ounce of muriatic acid. When about one ounce has been added, or no more

precipitate is formed, stir the mixture and let stand for twenty-four hours to settle. Then draw off the clear water by the faucet, fill up again with old solution, repeat the slow addition of an ounce of the sulphate of iron and muriatic acid, then at the end of a year or so decant all the water off and collect the precipitated gold, straining the water from it through a cloth and spreading on paper to dry; it may then be sent to the refiner.

Although the description may seem long, it requires but little more time than it does to throw it down the sink.

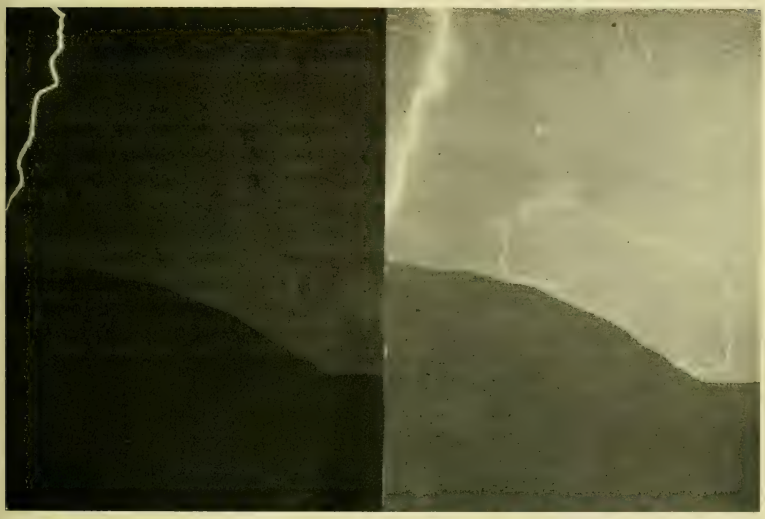
To save the silver from the hypo fixing baths is a still more simple matter. The fixing solutions of plates and paper are collected in a large earthen jar and two bright copper plates, about 8 x 10, are placed opposite each other; the metallic silver collected on these plates can be scraped off every two days with a stiff brush. The precipitate which has been brushed from the plates may remain until a sufficient quantity has collected. When it is removed from the liquid it should be strained through linen and dried. The refiner will do the rest.

I might state here that for the negative hypo bath several long, narrow strips of pure zinc or copper may be used, allowing the silver to precipitate upon them. Take the strips out every few days and scrape the deposit into a small jar. By this means the bath will keep clear and active much longer. Then, last but not least in importance, is the first water of the printing-out papers; it is collected in a barrel with a faucet about twelve inches from the bottom. I find the best way is to make a strong solution of salt, add one ounce to every gallon of wash water, after which a half ounce of diluted muriatic acid is slowly added. At the end of six months or a year the gray mud, which is chloride of silver, should be treated the same as the other residues.

NEGATIVE BY W. J. STREET. THE RETURN OF THE FLOCK. (*Salon Picture.*)

MEASURING THE WIDTH OF LIGHTNING FLASHES WITH THE AID OF PHOTOGRAPHY.

By Sanford Robinson.
Illustrated by the writer.



Accompanying this article there are two prints from the same negative, the subject being a lightning flash. There are, in fact, several flashes in the pictures, but the large one is the most interesting, and while there is nothing particularly original in a photograph of lightning, some deductions may be drawn from the one illustrated which may prove interesting. It will be observed that there is great halation shown in one of the prints. This one was printed normally on smooth etching matte. The other print, which shows perfectly sharp edges to the bolt, was obtained by *excessive* over-printing, from which it will be seen that every trace of halation disappeared.

The bolt is so well defined in the second print that I was able to accurately measure its breadth with a fine scale. This I find, at several of the widest places, to be 1-30th part of an inch or, decimally, .0333″. The focal length of the lens used in making the picture was exactly 7 inches. The distance from the camera to the top of the hill, a faint outline of which shows in the prints, at or just behind which the bolt disappeared, is accurately known, being 1800 feet. We have, therefore, a simple proposition in similar triangles,

Given: Breadth of image on plate=.0333
Focal length of lens or distance from lens to plate=7″
Distance from lens to bolt=1800 feet=21,600″

To find the breadth of the bolt:

7 : .0333 : : 21,600 : 102″.77=8′.56

That is to say, if the bolt was at a distance of 1800 feet, its breadth was about 8½ feet. If at a distance of one-half mile, as is more probable, it appearing to strike just beyond the brow of the hill, its breadth was about 12½ feet. At a mile it would have a breadth of 25 feet, and the farther away, of course, the greater the breadth, other conditions remaining the same.

I am not aware that the meteorologists have computed the breadth of such a spark, and the result obtained above seems to be unduly large. There is, however, no other solution to the problem. The bolt was at a distance, certainly, of not less than 1800 feet. Any greater distance simply increases the breadth of it.

The negative was made with a Beck R. R. of 7-inch equivalent focus. No diaphragm was used, the lens remaining wide open until the flash came. It was very dark and was raining heavily. Time, about 9 P. M.; locality, in mountains of New Mexico at an elevation above tide of 5200 feet; month, September; plate, Seed 26.

It is not often that a flash of lightning can be photographed under the circumstances obtaining in this case; where the distance to the flash is known (or, at all events, the minimum distance) and where the image is large enough and distinct enough to allow of accurately measuring the breadth of the flash on the negative. It is for these reasons that I consider the picture of scientific interest and value.

NEGATIVE BY E. L. AGOOS. SAN ANTONIO DE PADUA. (*Salon Picture.*)

NEGATIVE BY ARTHUR D. CROSS.

DEAD AHEAD.

PHOTOGRAPHY AMONG THE MAORIS.

By Walter Burke, F.R.P.S., Christchurch, New Zealand.
Illustrated by the writer.

A MAORI CARVING.

IN SPEAKING to the photographers of the United States about the work in New Zealand, I cannot do better than to send a few illustrations together with an occasional note on photography among the Maoris, the original inhabitants of New Zealand, the Britain of the South. The Maoris are admittedly the finest of any of the native races inhabiting the Pacific, both physically and intellectually. They are supposed to have come originally in canoes from the Hawaiian Islands, known in their legends as "Hawaiki." They are distributed throughout the colony, but by far the greater number are to be found in the North Island, in some inland parts of which there are still tribes who are little acquainted with the ways of the Pakeha (white man).

The ancient Maoris were skilled in wood carving and many of their wharepunis (the principal house in a pah or village) still in existence are remarkable examples of their ability in this direction, particularly so when it is known that the whole of the work was accomplished with stone tools. The first illustration is a good specimen of this old work and is what we would now call a "portrait study." Not a flattering one, however. These slabs form the uprights in the houses and each one is supposed to be a speaking likeness of some departed chieftain. The double spiral pattern which enters so largely into this specimen is found in all Maori work, and European scientists have not yet been able to decide where the ancient Maori obtained the idea.

The carved window is of another class. The framework is ancient, but

MAORI POI DANCERS.

A WINDOW IN A CARVED HOUSE AT WHAKAREWAREWA.

the center-piece, a sliding panel, is modern. The white spots for the eyes are made of inlaid Pawa, a species of pearl shell. The center figure in this case was painted with red ochre, a popular color in much of the native scheme of decoration, but a difficult color to get detail in photographically.

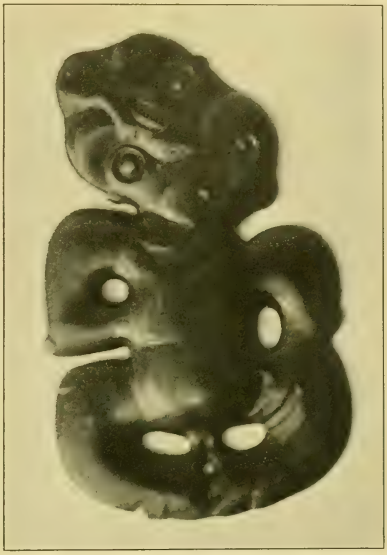
The Tiki, or He-Tiki, is made from greenstone, a variety of jade, extremely hard and this small god, about six inches in length, required months of labor in its making. These carvings are worn as pendants at the neck by some of the Maoris and are extremely rare and valuable. A specimen such as the one here illustrated would probably fetch over twenty pounds (one hundred dollars).

The Maoris, like most native races, do not like to be photographed by strangers and they have a justifiable aversion to the man who attempts to snapshot them against their will. But get to know them and, when once they have satisfied themselves of your ability as a photographer, they will do anything in reason to assist you, so long as you do not hurry them. With the Maori it is always a policy of "tomorrow will do" and you might as well try to hustle a Maori as to expect the sphinx to smile by special request. You must wait until the spirit moves and then—work quickly.

There are many remarkably handsome specimens among the Maori girls, even judged by European standards. One, a notable chief's daughter, is shown on the left of the group of Poi dancers in the illustration.

The children are splendid little souls, full of fun and merriment. No

tourist who has visited the Hot Lakes district of the North Island of New Zealand can forget the "Throw a penny; throw a penny here, Pakeha" of the crowd of little kiddies who play for hours in the hot pools. Stop at a pool where there are a number and throw in a handful of pennies and there is a splutter and a splash as the little heads go down and the little feet go up. Now a hand appears holding one of the coins and others follow with the smiling faces of the successful finders. Here many charming studies of the nude may be made.



A MAORI TIKI OR GOD.

The ancient dances of the Maoris, Hakas and Pois, are intensely interesting, but require a shutter working at least at a four-hundredth of a second to secure sharpness, and a quick-acting lens and fast plates to give definition in the dark faces, which are not at all actinic. It is only at intervals that there is an opportunity to secure those dances and until this week it had not been my lot to get them. But in the last few days I have exposed nearly four dozen plates, mostly on dances especially performed for me. Perhaps later on I may be able to show some of these.

In conclusion I may say that the camera work among the Maoris is most interesting but one must be prepared either to pay the models used or else, if prints are promised, the promises must be fulfilled. This breaking of promises by traveling photographers does more to "spoil sport" for the next comer than anything else and the modern Maori does not take much notice of the promises of the strange Pakeha photographer unless backed up by solid utu (money).

DIVING FOR PENNIES.

NEGATIVE BY OSCAR MAURER.

EASTER MORN.

Easter.

The light comes o'er the Eastern hills
And on the ancient city falls,
Until its glory finds and fills
The winding streets and broken walls.

The Christ is risen! 'Tis the day
Of resurrection, come once more,
Though centuries have passed away
Since Magdalene the tidings bore.

The olden light, the olden awe
Are ours again as once they were
When Earth's first Easter morning saw
The Angels by the sepulchre.

Time has made dust of courts and kings
And swept it on its winds, but still
Earth holds, above the dusk of things,
The Christ and Easter's miracle!

— Elwyn Hoffman.

ORTOL AS A DEVELOPER FOR DRY PLATES AND BROMIDE PAPER.

WITH FORMULAE FOR DIFFERENT PURPOSES.

By Samuel Purnell.

As a universal developer I have not met with anything in my photographic experience which I consider the equal of ortol. Even the strenuous advocates of pyrogallol admit that for plates it is "next to pyro." There are many experienced photographers who consider it better than pyro in the making of a perfect negative. It is one of the aromatic developers "made in Germany" by Hauff. Chemically it is said to be allied to metol and hydroquinone, but one trial is sufficient to show that it works very differently from the well-known mixture of those two substances. In aqueous solution with half its weight of metabisulphite of potash, as a preservative, its keeping qualities are practically unlimited. It does not stain plates or paper, and but rarely stains the fingers. Normally its deposit is an agreeable warm black. It is economical and is not inclined to fog.

The formula given by the maker, which comes with each bottle, answers very well for those who desire quick development and who care little for the quality of the resulting negative. For my part, I prefer slow and gradual development. Here is a formula which, for approximately correct exposures, produces fine gradations in light and shade and has given me satisfaction with several brands of plates.

FORMULA NO. 1, FOR DRY PLATES. TEMP. 65°.

Ortol	6 grains
Metabisulphite of potash	3 grains
Sulphite of soda, crystals,	60 grains
Carbonate of potash	25 grains
Ferrocyanide of potash, crystals	10 grains
Water	4 to 6 ounces

The addition of bromide of potash is not necessary with correct exposures; it is rather a detriment. The ferrocyanide of potash is an improvement, giving clearness, vigor and gradation, retarding development slightly, preventing fog and the blocking up of the shadows. Vary the amount of water according to the temperature, exposure and subject. Of course, equivalent quantities of dry carbonate of soda or of crystals may be substituted for the potash. With this developer the image comes up slowly, and progresses harmoniously to complete development in from five to ten minutes. It should not be used for more than four plates 5 x 7 inches in size. If greater density is desired more ortol may be added; if more detail and softness, more of the accelerator and more water should be used. During development the plate should be shielded as much as possible from all light. If fixed in a plain solution of hypo, develop until the density is but little more than desired in the finished negative; if fixed in the acid chromium bath (which is best), develop further.

FORMULA NO. 2, FOR MODERATE OVER-EXPOSURES. TEMP. 65°.

Ortol	8 grains
Metabisulphite of potash	4 grains
Sulphite of soda, crystals	60 grains
Carbonate of potash	15 grains
Ferrocyanide of potash, crystals	20 grains
Water	6 ounces

Add 10% aq. sol. bromide of potash about 10 drops.

FORMULA NO. 3, FOR MODERATE UNDER-EXPOSURES. TEMP. 65°.

Ortol	4 grains
Metabisulphite of potash	2 grains
Sulphite of soda, crystals	60 grains
Carbonate of potash	30 grains
Ferrocyanide of potash, crystals	20 grains
Water	6 ounces

No bromide of potash.

For great under-exposures resort to stand or tank development, using formula No. 1.

For the development of the "gaslight" papers, of which Velox may be taken as a type, I have found no developer so satisfactory in all respects as ortol. I like it much better than the "M. Q." It does not make the image flash out; it does not fog or stain; it gives slow and harmonious development, producing nearly all the qualities of the negative.

FORMULA FOR SPECIAL PORTRAIT VELOX. TEMP. 65°.

Ortol	4½ grains
Metabisulphite of potash	2¼ grains
Sulphite of soda, crystals	50 grains
Carbonate of soda, crystals	40 grains
Water	6 ounces

Add of 10% aq. sol. of bromide of potash about 10 drops, or just enough to get pure lights in the prints without green darks.

Do not over-expose Velox or similar paper. For special portrait expose so that in development the image will just begin to show in from ten to fifteen seconds, and the print be fully developed in about sixty seconds. Soak the paper a few seconds in cold water before applying the developer. Always work Velox by yellow light, and shield the paper during the manipulations as much as possible from all light if you would have pure whites in your prints. Fix in the usual acid fixing bath. The tones will vary from gray to deep black, according to exposure, concentration and the condition of the developer. Not more than eight prints, 5 x 7, should be developed in one solution; then throw it away and mix up fresh developer.

Carbon Velox requires a developer differently composed. Many persons have failed in working this paper, but they should have no trouble by using the following:

FORMULA FOR CARBON VELOX. TEMP. 65°.

Ortol	5 grains
Metabisulphite of potash	2½ grains
Sulphite of soda, crystals	50 grains
Carbonate of soda, crystals	50 grains
Water	4 ounces

Add 10% sol. bromide of potash about 5 drops.

Expose so that the image on the print will just begin to show in about five seconds, and be fully developed in about forty seconds. The other manipulations are the same as for Special Portrait Velox.

REDUCING COLLODION NEGATIVES BY THE PERMANGANATE PROCESS.

By Professor R. Namias.*

Some time ago I discovered that an acidified solution of permanganate of potash had the property of reducing gelatino-bromide of silver negatives in a very steady way, reducing first the densest parts of the image and afterwards the half-tones.

The solution I used is composed as follows:

Permanganate of potash	½ gram
Sulphuric acid	1 c. c.
Water	1000 c. c.

When the negative is sufficiently reduced it is removed from the bath, and if it shows yellow stains, due to the deposit of some bioxide of manganese, it is dipped in a solution of oxalic acid of one per cent strength. This clears it at once completely.

My method has the following advantages over Lumiere's persulphate of ammonium. It is more effective, the solution not affecting the gelatine as does the persulphate.

The negative remains clearer on account of the bleaching property of the permanganate and oxalic acid on the gelatine.

The solution is cheaper than the persulphate and keeps better. Besides, my method applies as well to gelatino-bromide paper, for which persulphate cannot be used, as in that case it dissolves the gelatine more easily still and colors the paper.

My method has found favor everywhere; in Italy many professional and amateur photographers use it, and write saying that they are exceedingly pleased with it, whilst in other parts of Europe those who have experimented with it have completely confirmed my results. I further wanted to know to what extent the method could be useful in reducing collodion negatives.

I noticed that the acidified solution of permanganate of potash had, on the silver of collodion images, a strong dissolving property, and if a steady working was required a much weaker solution had to be made.

I prepared a solution of permanganate as follows:

Permanganate of potash	2 grams
Sulphuric acid, commercial	20 c. c.
Water	1000 c. c.

This solution keeps well for a long time in a dry place. For use I take one part of this solution and add to it nine parts of water. On immersing in this solution the collodion negative, which should be fixed and washed, is reduced, but in a different way to gelatino-bromide plates. The half-tones are the first to be attacked, therefore, this method cannot be thought of for harmonizing collodion negatives which are too hard, but, on the contrary, the method will be very useful for clearing fogged negatives. This is what is the most important in the case of half-tone negatives.

* From Penrose's Pictorial Annual (Tennant & Ward, N. Y.)

NEGATIVE BY THOS. A. MORGAN, DENVER. THE WANE OF DAY. (*Salon Picture.*)

LITTLE RIFTS IN THE CLOUDS OF THE AMATEUR PHOTOGRAPHER'S LIFE.

WITH A HINT HERE AND THERE TO ASSIST IN CLEARING HIS SKIES.

By Henry Bowe.

It is now some six years ago that I first essayed to solve, with the aid of a pocket kodak, the great mystery, as it then seemed to me, of photography. This fact, I believe, will enable me to offer a few suggestions that will be of more value to the raw recruit in the photographic ranks than some more fluent writer whose salad days as a photographer are of less recent date. Today the irrepressible camera fiend is such a familiar and so obtrusive a part of every scene where people congregate that our familiarity with his ever-present, leather-covered box has caused us to amend our opinion concerning the mystery of photography and think it but a "press-the-button" process.

We buy a camera not thinking that it is a tool that we must learn to use but fully expecting it to contain some hidden mechanism or peculiar property of parts that absolves us from any necessity of giving the matter thought or study beyond the simple operation of setting the spring, or whatever it may be, and pressing the button at the proper moment.

Failure awaits us and we fall an easy victim to our own over-confidence. We have neglected to give due consideration to the little things that are of vital importance if success is to be achieved, and the whole thing is finally given up in disgust.

> "It is the little rift within the lute
> That, by and by, makes all the music mute;
> And ever widening, slowly silences all."

Look for the little rifts, the seemingly unimportant things that, in nine cases out of ten, are at the bottom of your troubles. In photography, as in all else, it is those who are painstaking and persevering and who give the matter thought and attention that succeed. Those who neglect the minor details, grow careless about the small things and unmindful of the "little rifts" blame their camera, their lens, their plates and give up the work forever.

Did it ever occur to you that unclean bottles may cause a multitude of failures? You get together a lot of old medicine and junk bottles, often permeated with grease and acids, and then wonder why your negatives and prints are defective. Get new bottles, if you can. If you must use secondhand ones, clean them thoroughly with hot water, put in a few old nails and tacks and shake them well. After you think they are clean, wash them out with a solution of one part each of bichromate of potash and sulphuric acid in twenty parts of water, as directed in the Amateur Department for January for cleaning the films off of negative glasses. It will also clean off the film of dirt which may remain in the bottle. The solution may be obtained very cheap at any electrician's. It is called electropian fluid for Grenet batteries. Another prolific source of failure is old corks for your bottles. A penny-wise and pound-foolish plan. For a few cents you can obtain an assortment of new corks at the nearest drug store. Glass-stoppered bottles are the best. A little glycerine rubbed on the stoppers will prevent them sticking as they sometimes do when used for an alkaline solution. Put large labels on all your bottles and put on them their contents, when compounded and any other information that you might wish to refer to at some future time.

Trays also need careful attention. An occasional rinse in the electropian fluid will do them no harm. Rubber ones, if not properly vulcanized, will often form a sulphurous film on their surface when dry, necessitating a thorough cleaning before use. One of our old proverbs could be well revised for the photographer's benefit, to read, cleanliness is next to success. Uncleanliness is certainly a heavy handicap.

The process of development is greatly simplified by making exposures that are correct or nearly so. What is the use of trying to figure the matter out ourselves or, still worse, guess at it, when we can, for twenty-five cents, have the advantage of the years of experience of men who have made the matter a study? There should be an exposure table in every beginner's pocket. Many of these tables are only arranged for outside or landscape work, but the light values for different interiors can easily be found by taking a piece of P. O. P., printing or tinting it outdoors to a slight depth, noting the time, and then repeating the operation inside. If the paper takes five seconds to darken in the sun and one hundred inside the room, it is easy to see that it takes twenty times as long, and compute your exposure accordingly. If the weather is dull, print only to very slightly tint your paper and thus save time.

As a rule the novice becomes imbued with the idea that the smaller the stop the sharper his pictures and the better his results, and as our modern lenses nearly all have iris diaphragms, he stops down to pinhole size. His pictures lack atmospheric perspective; the distance, middle distance and foreground seem all in one plane; in fact, one can hardly tell where foreground ends or distance begins. He talks of detail as the one thing desired, and he

gets it with a vengeance. I met one of these gentlemen some time ago who enthusiastically advocated the use of the smallest stop, not only on this account but because the longer exposure "gave the subject a good chance to soak into the plate." Stop down only enough to get the proper rendition of your distance. On misty days you can use a smaller stop as distant objects do not appear so sharp and well defined and the effect of atmosphere is more easily secured. On bright, clear days use a larger stop to affect a similitude of atmosphere and distance.

In all exposures it is best to be on the safe side. "Better a trifle over-exposure than under-exposure" has been my motto. By so doing I am sure of detail in the dark shadows and by using a little restrainer, make a good negative, whereas, if the exposure is too short, the necessary detail will be lacking.

Another trouble is caused by using small, ill-smelling oil or candle dark-room lamps such as are foisted upon the simple-minded novice. More than a few plates are fogged by trying to work by their limited illumination, and did their stench cause fog, the poor novice would very early go out of business. It is not the size of the ruby glass which does the damage, but the actinic light which it allows to pass through. A large surface gives a much softer, safer and better light.

I use a large, home-made box glazed with a sheet of ruby glass of ample dimensions and of good density. Over this is a sheet of orange tissue which extends to within an inch of the top, leaving a strip through which I can watch my lamp—a small-sized, ordinary house lamp. The size of the box prevents generation of heat to any noticeable degree. Developing is carried on at a distance of four or five feet and a fogged plate is unknown, although I can see all my labels and read them easily at that distance.

I often hear the statement made, "I load my holders in absolute darkness so I am sure they will not be fogged." Now there is a good deal of humbug in this. Plates while being coated, cut, examined and packed are exposed to ruby light. It is foolish to risk getting finger marks on the film, and things mixed up generally just to avoid the few seconds' exposure to the feeble ruby light required to secure comfort and piece of mind.

The beginner usually buys the fastest plates on the market because some one has told him that they are a necessity in snapshot and flashlight work. For ordinary work they are so fast they simply run away from him. We all have this craze for fast plates in our salad days but those of us who have profited by experience are going slower, like the plates we have learned to prefer.

Proper fixing of the negative is regarded by most beginners as a matter of trifling importance. His usual plan is to place them in a fixing bath face upward and as soon as they look clear remove and give them a perfunctory wash. Never fix a negative film upward if you desire a clean negative. The developer so softens the film that any foreign substance, such as sand, grit or bits of glass, will, in the hardening of the film, become so firmly imbedded that it cannot be removed without damaging the film. If you have no upright fixing box, contrive some way of fixing them film downward. A round-bottom dish will do. Leave them in the hypo as long again as it takes to remove the white, unaltered bromide from the film. Otherwise you will wonder what about the

trouble with your fine negatives after a few months have passed. An acid fixing bath fixes quicker than plain hypo, has a clearing effect on the negative and can be used repeatedly until exhausted.

If you do not succeed with a simple 4 x 5 hand camera do not imagine that you only require an 8 x 10 camera to obtain success. You cannot expect a good negative every time with either size. One of our best writers says that if you get one good, first-class, thoroughly satisfactory negative out of a dozen plates you will be doing better than he does. He, of course, requires artistic qualities that the beginner does not demand in his negatives but it shows how little cause we have to complain because all our negatives do not please us.

The best of schooling is to be had in the pocket kodak kindergarten. It gives you a fair insight into the processes of developing, printing and the like at a trifling expense if you but go at it slowly and systematically. Enthusiasm is commendable but, at times, it may lead to over-indulgence, a state of satiety or photographic indigestion, so to speak. Trying every brand of plates, paper and developer on the market may be good for your dealer temporarily, but it is not conducive to success.

Finally, a similar mistake, we might call it the *radix malorum*, viz., assimilating, without the necessary grain of salt, the printed matter so generously distributed by manufacturers and dealers, in which the beginner is led to believe that the amateur's path is one of roses if he but use this or that particular apparatus or material. Your own camera and the material you are using will give you as good results as any if used intelligently and with a full understanding of its capabilities. Do not understand me as wishing to depreciate the value of photographic literature, particularly if you live where you have no access to a camera club or photographic friends whom you can consult. Subscribe to a good magazine. It gives you a camera club right at your door and an experienced photographer as a friend and adviser at your nearest post-office. Through its correspondent's column or, in the case of our own CAMERA CRAFT, its Amateur Department, it is always ready to help you out of your difficulties. Its editor is at your command. You get the benefit of his experience, you read the experiences of others and feel yourself one of the great brotherhood of amateur photographers.

NEGATIVE BY WM. F. JAMES CHICAGO LANDSCAPE. (*Salon Picture.*)

NEGATIVE BY O. V. LANGE.

"FIRST FLOWERS OF SPRING."

STEREOSCOPIC PHOTOGRAPHY WITH AN ORDINARY CAMERA AND SINGLE LENS.

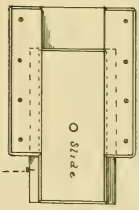
By H. D'Arcy Power, M. D.

Many amateurs would like on occasion to make stereograms, but do not feel inclined to go to the expense of a special camera. Such was my case, and so I set to work to adapt my 5 x 7 reversible-back Graphic to this purpose. No doubt others have followed along precisely similar lines, but I give the details of my arrangement for the benefit of those who, like myself, are unacquainted with their writings.

There are two ways of making a stereogram. First, to take two pictures on one plate, by means of two lenses, three inches apart, in a camera divided in the center. The second method is to take two separate pictures three inches apart by means of an ordinary camera. The disadvantage of the second method is that it is not applicable to moving objects, as, before the camera could be moved three inches and the plate-holder changed, the position of the subject would have altered; otherwise the results are just as good. Moreover, stereograms are rarely required of moving objects, and to its advantage is the fact that the bother of taking two cameras on an outing is dispensed with.

What I desired was to make the shifting of the camera from the first to the second position as simple and rapid as possible, and, secondly, to obtain both pictures on one plate, as in the stereoscopic camera. This is how I did it. First, I had a tripod-head made of two pieces of wood, one moving laterally inside the other. The lower of these receives the tripod legs and is fixed; the upper movable piece is attached by a screw to the baseboard of the camera. A stop permits of an excursion of three inches of the upper on the lower. The arrangement will be easily understood from the accompanying drawing.

The tripod-head, as a whole, is five inches square and one inch thick. The movable center is 5 x 3 inches and three-eighths of an inch thick. On taking a picture, the camera, attached to the movable center, is pushed over as far as it will go to the left, the exposure made, and then pushed over as far as it will go (three inches) to the right and the second exposure made. It should be mentioned that the hole for the screw is in the center and carried right through both pieces of the tripod-head. When the camera is used for ordinary work a long screw is used from beneath, which, passing through both pieces holds them together and prevents unnecessary movement. When used for stereoscopic work it is passed downward, first through the baseboard and then into the movable center of the tripod.



THE TRIPOD HEAD.

This tripod-head is therefore available for both classes of work, allows of the camera being moved the necessary three inches, or less, with great rapidity and ease, and is very little larger than an ordinary tripod-head.

The next problem was to arrange for two exposures on one plate. This was easily accomplished by providing a piece of board to take the place of the reversible back, with an opening in the center 5 x 3½ inches. It is covered with black velvet, and has runners and springs to carry and permit of the

movement of the plate-holder. A stop is so placed that when the plate-holder is pushed up against it the *right* half of the plate is over the aperture in the board, and can be impressed with the image from the lens. When the plate-holder is drawn across to the limit of the runners on which it rests the *left* half of the plate is opposite the aperture. This arrangement is easily comprehensible from an examination of the accompanying drawing. The dimensions of the stereoscopic back are given on the diagram, and it will be seen that it is but three inches longer than the regular reversible back.

Now for the *modus operandi*. The camera, being attached to the movable part of the tripod-head, is pushed over to the left, the object focused and the plate-holder also pushed over to the extreme left. The exposure is made, the camera rapidly pulled over to the right, the plate-holder also drawn to the right and the second exposure made. The transition for the second exposure

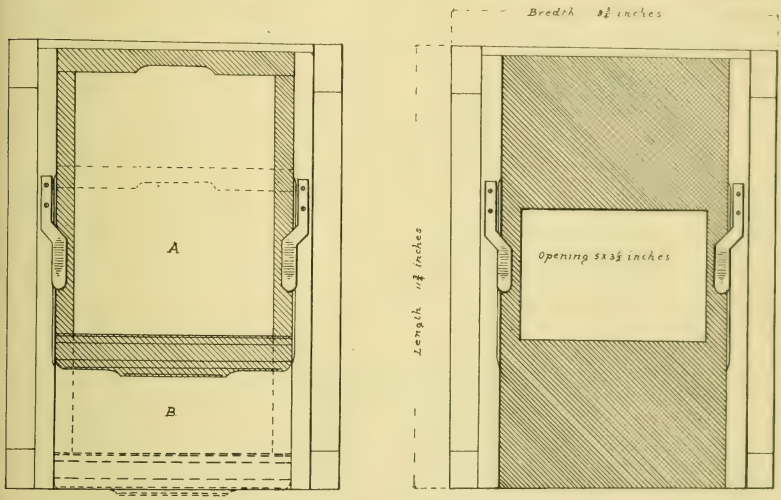


DIAGRAM SHOWING THE MANNER IN WHICH THE PLATE-HOLDER IS ADJUSTED.

can be made in six seconds and portrait stereograms can easily be obtained. A valuable feature of this method is that the usual transposition of the two parts of a stereogram is not necessary, as it is already effected by the movement of the plate-holder from left to right. This device has received thorough and practical testing at my hands for pictorial, scientific and portrait stereograms. For a 5 x 7 camera the additions given above can be made for a matter of five dollars, or, if home made, for much less. There is nothing to carry on an outing but the extra back —and the stereograms obtainable are perfect.

Lastly, I would say to the amateurs, if you are interested in preserving mementoes of your daily surroundings; if in after years you would see the house you dwelt in, your wife and children as they then were; would possess, in fact, a record of real things rather than an ideal presentation of them—then by all means give some attention to stereoscopy, for if those things interest you, you can scarce help becoming an enthusiast.

CAMERA CRAFT

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Subscribers who do not receive their magazines promptly should always notify the business office at once. The mail service out of San Francisco is not of the best, so that safe delivery is not guaranteed. However, all mistakes will be corrected and duplicate copies forwarded as soon as possible.

OUR STAFF

This month we wish to call attention to the addition of two new members to our staff, already the best of any photographic publication in the world. With the two new members comes the introduction of two new departments, which cannot but be of interest to a large circle of readers. The large Eastern circulation of the magazine made it necessary to add an Eastern representative who could keep in touch with the progress of Eastern workers, and the services of Mr. H. McBean Johnstone, the best-known photographic writer of the East, was secured for this department. The other department is destined to attract much attention from that class of earnest workers, the photo-micrographers, who have done so much and received so little recognition at the hands of the photographic press. The department will be in charge of Mr. Theodore Kytka, the famous government and hand-writing expert, known all over the world as one of the most painstaking and accomplished micrographers in the country. CAMERA CRAFT compliments itself upon the additions to its staff.

WAKE UP

The California Camera Club at present is in a state of stagnation. The wonderful success of the Photographic Salon seems to have taken the life out of the members, and since the close of the exhibition little has been done to stir up interest in the club work. While the Eastern clubs are holding exhibitions every month and inviting the

greatest workers of the day to send in collections of pictures to be displayed upon the club walls, the boards of the California Club are ornamented with the same hackneyed display that appeared month after month last year.

Let the directors wake up and give the members something to think and talk about. Have a series of one-man exhibitions. Follow the lead of other clubs by inviting Eastern workers to exhibit and originate some plan by which the artistic interest excited by the late salon can be fostered

MEXICAN PHOTOGRAPHERS

CAMERA CRAFT notes with pleasure the renewed interest in photography on the part of its readers in Mexico. The beautiful opportunities and pleasing environments of Mexican life, together with the romantic interest attached to everything Mexican, possesses an attraction to the everyday American easy to understand. Traveling men who have recently returned from Mexican territory bring glowing reports of the increase of photographic endeavor, and it is, indeed, a pleasure to note the renewed interest of our brother photographers.

Do not forget to attend the Industrial Arts Exhibition of the California Club, to be held April 10th to 20th, at Mechanics' Pavilion.

The next issue of CAMERA CRAFT will either be devoted to child photography or scientific matters of absorbing interest; it depends altogether on conditions. Anyway, the May number will be a surprise.

This edition of CAMERA CRAFT contains ninety-two pages.

NEGATIVE BY L. E. REA, SAN FRANCISCO. DRY CREEK. (*Salon Picture*)

A PHOTOGRAPHIC COMMENTARY.

BEING A CRITICAL DIGEST OF RECENT WORK.

CONDUCTED BY H. D'ARCY POWER, M. D.

OVER-EXPOSURE AND TANK DEVELOPMENT.

Some months back I gave an account of E. Blech's writings on "Tank Development," as reported in Liesegang's *Wochenblatt*, wherein he states that an over-exposure of thirty times the normal is of little consequence when this method of development is used. Thereupon a reader wrote to know whether I ever had experience of three times the normal, much less thirty, being corrected by this method. First, let me disclaim any responsibility for the statements of writers I report, though I very frequently have the curiosity to test their assertions. Now, I think I have seen three times the normal exposure corrected in ordinary pyro development by the addition of water and bromide, and since then I have taken one plate and given it a normal exposure, as indicated by the Walkin's meter, and immediately exposed another plate thirty times as long. Both were placed in Blech's pyrocatechin tank bath developer, and both gave fair printing negatives, though I am not able to aver that the over-exposure made no difference; it was flattered, but not greatly so. The subject is worthy of careful study.

PHOTOGRAPHY AS A SNARE AND A DELUSION.

To a pessimistic reader of many journals, especially the foreign, the above heading might seem quite natural. In recent investigations and controversies everything photographic has been called into question, and what is not intrinsically bad is stated to be perishable. We were pretty well used to the charge of distorted perspective, and had almost acquired a taste for the false values of unorthochromatic plates, but we did believe in our inmost hearts that a good lens gave truthful drawing. Now, alas, Mr. Chapman Jones, in an article in *Camera Obscura*, most effectively squelches that delusion, and shows that even with the best of modern lenses the image of a yard stick focused across the field of the ground glass will show a different size in its division at the center and edge of the field — ergo, all other objects extending from center to periphery must be equally out of drawing. Then, again, the iconoclasts have been after our printing papers. The gelatine papers we had long given up as fugitive, but now we have an attack on the toned bromides, which are demonstrated to be equally evanescent.

The writer took only a languid interest in this, secure in the permanency of carbon and platinum, to which he was solely addicted, but, alas for the stability of mundane things, there came a man out of Germany who said that toned platinotypes would pass as the morning, and now behold another, out of England, who has taken occasion to forcibly remind us that carbon is not carbon, but indigo, or rose madder, or anything else that pleases the public eye, and its life is but the life thereof and may be a short one. Moreover, not only are the pigments attacked, but the very paper on which they are printed is stated to be an ephemera, and instead of immortalizing the kodak girl to the hundredth century, a snare that, in the language of Bunthorne, shall leave naught of her highest inspiration but the "dust of an earthly tomorrow." All is a passing show — silver or gold, platinum, pigment and paper. Never mind, we still have our negative to leave as an heirloom to our children to the twentieth generation. Fond delusion! Dr. Isaac Roberts has recently stated that in his negatives of the heavens he has observed that some of the smaller stars have disappeared, and Chapman Jones warns us to put no trust in a negative fixed in acid hypo, and yet acid hypo is the reigning favorite.

Thus are our ideals shattered, and the "perfect negative," no less than the faked positive, consigned to an early limbo. The ancient masters, a hundred years hence, will look out of their antique frames and contemptuously inquire for the defunct parvenues of the nineteenth century.

But, to treat the matter seriously, in work of a certain class these allegations should receive careful consideration. In nine hundred and ninety-nine prints out of a thousand the drawing of the lens is as accurate as needs to be, but in a certain class of photographs taken at scale for scientific purposes, an error in delineation is a matter of concern

to be known and allowed for. For ninety-nine per cent of photos made, silver paper is as permanent as desirable; but for the production of prints made for the benefit of posterity the question of undoubted permanence should receive careful attention. Pure linen paper, untoned platinum, or carbon tissue made with lampblack, India ink or the ferruginous earth will secure this and should alone be used; and if our negatives are really endangered by acid hypo, then by all means let us forego its convenience and hark back to the straight article, which is simple and cheap enough.

SEPIA PAPER.

Doubtless many have experimented with his paper as manufactured by Eastman, and have found it as excellent as it is cheap. The paper is too coarse for small negatives with fine detail, but for large heads and broad or sketchy subjects few printing papers can beat it. Several have told me that they are troubled with reddish spots after toning. This is due to washing or toning too many prints at once. They should not come together until they have been well flushed with water. Frank F. Fraprie has a useful and interesting article in the March *Photo-Era* on "Photographic Processes as Educational Aids," wherein he gives a formula for Sepia paper. It is as follows:

Make three solutions —

A.

Green ammonium ferric citrate	25 grams
Acid, tartaric	4 grams
Water	200 c. c.

B.

Gelatine	6 grams
Water	100 c. c.

C.

Silver nitrate	10 grams
Water	100 c. c.

Mix A and B at a temperature of 100° F., and slowly add C. Coat paper while still warm.

COPPER TONING OF BROMIDE PAPER AND LANTERN SLIDES.

During the past year many notices have appeared concerning toning with ferricyanide of copper, and one of the last to write thereon is Mr. W. B. Fergusson in the British Journal Photographic Almanack, who relates in detail the experiments that have led him to adopt his present formula of:

Copper sulphate, in 10% solution	75 c. c.
Potassium citrate, in 10% solution	50 c. c.
Potassium ferricyanide, in 10% sol.	66 c. c.

I have had experience with this process as applied to Velox paper, and can answer for it that the tones are pleasant. No staining of the whites occurs, as with uranium, and it seems to be quite permanent.

BUSINESS NOTES AND COMMENT.

To the photographer who likes to take a small film camera along to expose on subjects not important enough for a large picture, Kirk, Geary & Co., 220 Sutter Street, are offering a full line of the well-known Hawkeye film cameras made by the Blair Company. These cameras are inexpensive, and fill all of the requirements of the most particular photographer.

The wide-awake photographer will be interested in the catalogue of photographic books just issued by Tennant & Ward (289 Fourth Avenue, New York). It contains a full list of photographic literature and is extremely valuable.

The amateur readers of CAMERA CRAFT will be treated to the latest, a ten-cent booklet, "Pictures and Pointers," in exchange for ten names and addresses of kodak friends and one two-cent stamp. The Mellen Photo Publishing Company, 96 Fifth Ave., Chicago, Ill.

The following letter was forwarded us by Mr. Wilfred A. French of the well-known Boston firm, Benj. French & Co., and is especially pleasing at this time:

MY DEAR MR. FRENCH:

The February number of the CAMERA CRAFT which you have so kindly sent me has just been received, and it is equal to anything that I have seen. I think the work in it is way above the average of photography. Judging from this standpoint I should say that the Pacific Coast was way ahead of any of the salon work shown in the East.

Thanking you again, I am,

Yours very truly,

C. S. LUITWIELER.

A catalogue which has just been issued by Hirsch & Kaiser marks an epoch in the photographic business of the Pacific Coast. It is complete in descriptions and illustrations of up-to-date apparatus for the amateur and professional photographer. A copy will be sent upon request.

If you are interested in panoramic photography send for the advance announcement of the Multiscope and Film Company, Burlington, Wis., containing a full description of the new F styles.

EASTERN NOTES AND COMMENTS.

CONDUCTED BY H. McBEAN JOHNSTONE.

Once in a while you want to reduce or to intensify a negative that you have already varnished, and somehow or other you have to get the stuff off. And what's more, you have to do it thoroughly, because if you don't, streaks and blotches occur wherever the gelatine is not properly cleaned. All that you need to do to insure the complete removal is to add a little .880 ammonia to the alcohol used to dissolve the varnish, say about one part ammonia to twenty parts of alcohol. Put the negative in a dish with a sufficient quantity of the solution to cover it, and after it has been in for half an hour, thoroughly swab it with a tuft of cotton wool. Then give it a good washing under the tap and you'll find that the trick has been done.

Not very long ago I came across an amateur who didn't want to spoil his bedroom window by putting up a lot of racks for his printing frames, and who had devised a cracking good scheme to take the place of it. In one corner of each frame he put a hook, and in the corner diagonally opposite he inserted an eye, so that by means of a nail in the window frame he was enabled to suspend the whole bunch up against the pane, where they got all the sunlight that was going. So simple and yet so efficient.

Up to the first of April, while the workmen have been getting the Pan-American Exposition grounds into shape, amateurs have been allowed to make snapshots at the rate of twenty-five cents a day, or seventy-five cents a week. With the opening of the exposition the price goes up one hundred per cent. As at the World's Fair (the photographic privileges are controlled by the same man, C. D. Arnold) the regulations will not permit the use of a tripod or a camera that takes a photograph larger than 4 x 5, and vigilant spotters have for some time past been on the watch-out for the criminal who tries to evade the law. Every amateur who takes in the exposition wants to remember to bring his camera along, and it will, indeed, be a peculiar thing if he does not find some subjects that prove worthy of his plates, particularly along the Midway. It's going to be a great show.

When you go into an exhibition and look at the profusion of photographs that adorn the walls, the first thing that strikes you is the predomination of square and rectangular-shaped frames displayed, and the extremely small number of round or oval shapes, if, indeed, there be any at all. There is no reason on earth for it. While it is true that the rectangular frame suits most compositions best, once in a while you come across a rectangular picture that would look better in an oval and that is only placed in a square-cornered frame because it is customary. Now, there is absolutely nothing nicer than a circle or an oval or something else of a similar design in which to frame a picture, and when placed on the walls it adds materially to the general effect, breaking, as it does, the abominable multitude of square lines and right-angles that confront one. Why not use it oftener?

How do you filter your solutions? Filtering-paper? Suppose that instead you take a wad of absorbent cotton and put it in the bottom of the funnel and see how much quicker it is. For all solutions, except gold and silver and pyrogallic acid, you will find that it answers just as well. I use it all the time.

It is my opinion that in spite of all that has been said in favor of orthochromatic plates, not one amateur in twenty uses them right along. Everybody should. When one considers that by their use it is possible to secure such a wonderful wealth of detail amid the dark shadows of heavy foliage, and what a great range of luminosity in tone value it is possible to secure further argument is unnecessary. And then think of the rendering of clouds. Here we are in the month of April, when as Tennyson puts it, "clouds are highest up in air," and it behooves every amateur who is wise to lay in a stock of cloud negatives in anticipation of winter.

It often happens that you get a print that you would rather see on some other mount, and not possessing the negative, you hate like the mischief to take it off for fear you will tear it. Now, I'll tell you how to do it. Take the photograph and lay it face downward on

a sheet of clean glass, and then on top of it place a damp cloth, folded so that the edges do not project over the edge of the mount. On top of this again place another sheet of glass, and over all a heavy weight. Let it stand over night and in the morning your print will be ready to come off without pulling.

Once upon a time, many years ago, when I bought my first camera, I used to be troubled with a fog on my plates that I could never account for. Finally, an older worker, who belonged to the same camera club, told me that he had been similarly troubled once, and suggested to me that the root of the trouble most likely lay in the fact that my lens was dirty. Come to look at it my lens was dirty. I keep it clean now, and haven't been troubled since.

A short time ago I paid a visit to Niagara Falls to look at the ice bridge and see the greatest "freeze-out" on the continent. While I was there — a matter of possibly half an hour — a thing that impressed me more than the Falls was the great number of "snapshotters" that came along and made exposures. As a rule I am opposed to the word snapshotters; here I am in favor of it, for the universal method of procedure seemed to be to rush up and press the button and then rush away as fast as legs could trot. True, it may have been some sort of a race. I wonder who got the prize. Just think, in thirty minutes by the watch, I counted twenty-seven kodakers, and over two-thirds of them I sized up to be "you-press-the-button-we-do-the-rest" fiends. I'd like to see some of the results of that day's work. They turn the film over to a professional to be developed without telling him what the subjects are, and then they wonder why it is that they don't get better results. The photographer simply runs the films through a tray without cutting them apart, and paying no attention to the fact that right along side the Falls is a very much under-exposed interior, and on the other side of it another one over-done. All he cares about is getting his money out of it. It's not his fault if the pictures are poor, and not his reputation that will suffer. And then, amateurs have no reputations to lose. Most of the amateurs know pretty well what they want the picture to look like, and that they want gradation and half-tone and correct contrast between that snow and sky. O, yes, they know it. And how the dickens can they hope to get it when the whole bunch is run through at once? Why don't they do their own work anyhow, and have it done properly? Every man is his own best servant.

When you have to make an enlarged negative you will find it advantageous to use a backed plate always, and more especially so, should it happen that there are strong high lights in the picture to be copied.

Some years ago I was a member of a camera club that made a boast that its membership was limited to twenty-five, and I'll venture to say that never did twenty-five more enthusiastic workers find themselves linked together, without such drawbacks as "laggers" or "hangers-on." But what I started to tell you about was the field day that we used to hold every Saturday afternoon, and incidentally I would like to ask why it is that present-day camera clubs in the East don't hold field days. I know of nothing that is calculated to raise the standard of work turned out by a club quicker than a good weekly field day, where all the members are given an opportunity to study the one subject, each from his own particular standpoint, under any conditions that he may like, and then afterward to compare his results with the impressions of half a dozen other chaps on the same subject. Truly this is conducive to successful work.

I wonder why it is that we don't see more twilight pictures. What a chance there is for the amateur to study composition in the gloaming, when only the great masses are visible and all the obtrusive fine detail is swallowed up in the enshrouding gloom of approaching night. What soft, dreamy, and yet perfectly sharp pictures can be produced, and how they rest the eye. As Eleanor S. Inslee says, in the "Philistine";

> Still and silent the green hills lay,
> Stirred neither twig, nor leaf, nor flower;
> Rosy yet from the sun's last ray,
> Lulled to rest by the twilight hour.

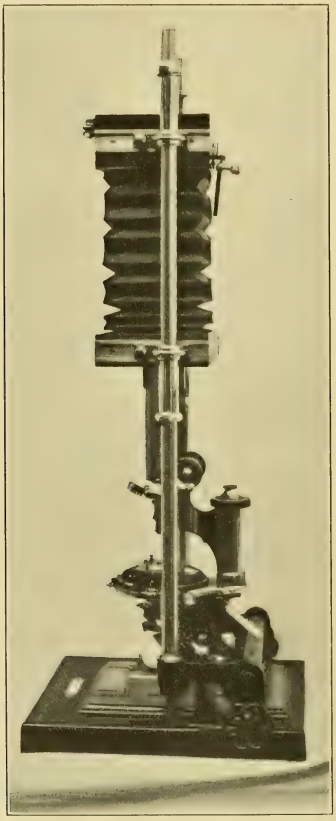
Why is it that so many amateurs waste their good money buying such things as hypo eliminators? I ran across a fellow the other day using one. I thought, "You must have more money than I have." All that he needed to do, if he wanted a quick print, was to hold his print under the tap and wash it off with a tuft of wet cotton, and in three or four minutes it would be ready to dry all right. Now, what's the good of a hypo eliminator anyhow?

THE PHOTO-MICROGRAPHER.

CONDUCTED BY THEODORE KYTKA.

A VALUABLE LENS.

The advent of the new Zeiss-Planar photo-micrographic objectives fills a long-felt want. The new lens bids fair to become very popular, especially so with photo-micrographers using low-power objectives where an extreme depth of focus is necessary, and where an even and brilliant illumination is required.



THE NEW CAMERA ADJUSTED FOR VERTICAL WORK.

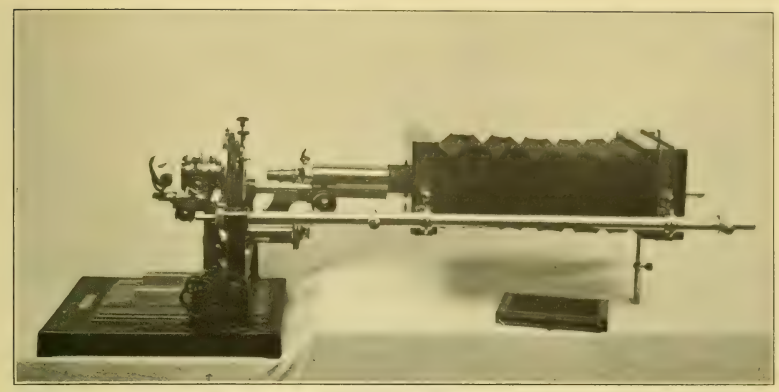
The lens is manufactured from the Jena glass, from a formula patented by Zeiss. The great value of the lens is in the extremely sharp definition, great amount of illumination and freedom from marginal distortion.

Where the lens is used for photographing flat surfaces on an enlarged scale, such as leaves, insects, wings of butterflies and sections of handwriting, it is of the utmost value. For instance, take a Zeiss-Planar of 3-inch focus, air angle of 65°, numerical aperture 0.54, mounted with an iris diaphragm. This lens will cut a plate taken from a flat surface, 17 x 20 inches, sharp, clear to the edges, and will give a microscopic definition, very little stopping down being required. The new lenses come in the following series: ¾-inch, 1⅜-inch, 2-inch and 3-inch focus. The entire series is fitted with a society screw, and can be used on any microscopic stand having a society screw flange. Because of the great illuminating power of these lenses, the time of exposure is cut down to a minimum, and, the price being very low, they should find many friends.

A NEW CAMERA AND STAND.

Almost every book or article dealing with the subject of photo-micrography, published in either Europe or America, advises the beginner having a microscopic stand and objectives in his possession to rig up a camera adapted for outdoor or studio work, and make the necessary changes for lengthening of the bellows by means of cones, and the adapter for the tube of the microscope, together with various other suggestions, such as placing books under the camera to bring it on a level with the microscope.

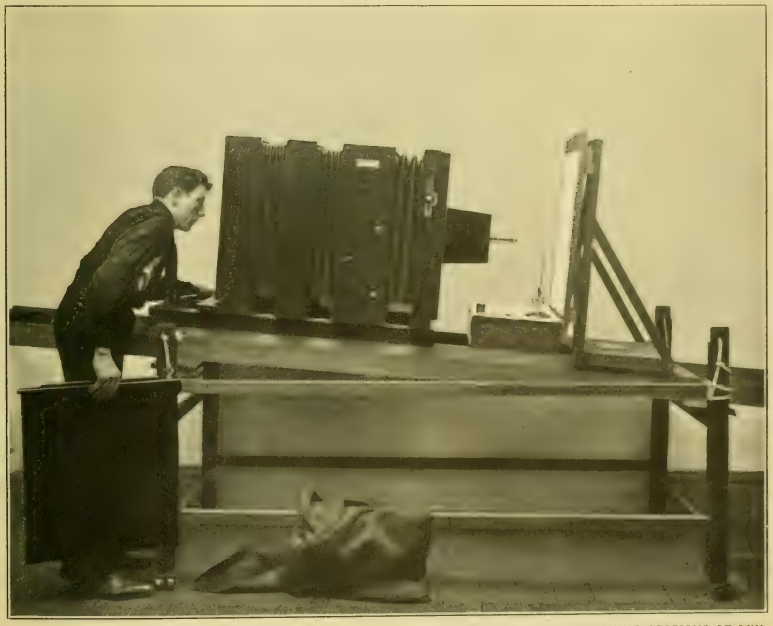
Now, let me tell you that if you follow the above suggestions your real troubles and failures begin. After many years of experience, my advice is, if you expect to accomplish good results in this line, and if you intend to be rewarded for your time and labor, that, in addition to a good stand and objectives, you provide yourself with a good camera, made expressly for use in photo-micrographic work. Select one having front and back sliding movements, supported on sliding rods and made absolutely rigid on an iron base. Such a camera has just been placed upon the market by Bausch & Lomb at a very low figure. The accompanying



THE NEW CAMERA.

illustrations show the same camera and stand used vertically and horizontally. The size of the plate-holder is 4 x 5 inches, having kits which allow the use of 3¼ x 4¼ plates.

This camera and stand has been lately designed, and demonstrates again the superiority of American ingenuity in mechanical construction and artistic workmanship.



A THREE-INCH ZEISS-PLANAR LENS ADJUSTED TO A 17 X 20 CAMERA FOR PHOTOGRAPHING SECTIONS OF PEN-WRITING ON A GREATLY ENLARGED SCALE, WHERE MICROSCOPICAL DEFINITION IS OF ALL IMPORTANCE. IN THIS INSTANCE THE LENS IS FOCUSED ON A BROKEN-OFF PENCIL POINT, CONTAINING A SMALL GRANULE OF QUARTZ IN THE GRAPHITE USUALLY FOUND IN THE CHEAPEST QUALITY OF PENCILS.

CURRENT AFFAIRS IN CHICAGO.

CONDUCTED BY E. W. THOMAS
CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS.

Photography in Chicago and vicinity was frozen last month. A small percentage — the real enthusiasts — were out for snow pictures, and the good things they show will be more than valuable next July and August to cool us off.

Deep plots and schemes are being laid for the near future. The club committees are talking annual picnics and weekly outings, Saturday and even Sunday trips to out-of-town districts. The old Dutch Mills are to be stormed and shot at — little wonder some of them are nearly ready to fall. They, like the buffalo on the Western plains, are fast disappearing. Our next exhibition is being looked forward to with much pleasure. Amelia Van Buren and Henry Troth will be the contributors.

The lecture by Rev. R. A. White, "Two Weeks on an Ocean Freighter and Zigzaging Over Europe," was one of the best lectures we have had, and was well received by a full house. Mr. White is a member of our society, and his artistic work with the camera is well known.

THE BERG AND KIELEY EXHIBITION.

BY ROBERT CRAIK MCLEAN.

The last monthly exhibition of the society contained one hundred and fifty prints by Joseph T. Kieley and Charles I. Berg. Those sent by Mr. Kieley consisted largely of portrait studies with a proportion of landscapes. Mr. Berg's prints were all portrait and figure studies.

We all know Mr. Kieley's peculiar trend of expression, as he is one of the leaders in the recently developed fad of local development which has presented some startling aspects in our otherwise not too prosaic art. Not to go into a subject that is occupying more or less of the attention of the photographic world I hope that all of my readers will have an opportunity akin to mine, when I had the chance to compare some portrait and landscape work with that of Mr. Kieley

NEGATIVE BY H. G. BRINKLEY, CHICAGO. THE LAST SNOW.

on the walls, work that was directly on the lines and in the feeling of his, and done with the negative more successfully in every way than any Mr. Kieley ever did or can hope to do by local brush work.

I studied Mr. Kieley's work particularly

because it seems proper to base one's opinion of the advantage of brush work to the average amateur largely upon the results he has obtained. For, while Clarence White is more of an artist and Mr. Steiglitz more expert in the use of the brush, Mr. Kieley's pictures represent the average work of an average amateur, and the result as he shows it says: "Don't" with a capital D. At least, don't exhibit it. In his whole collection here his "Averted Face" is the only one that approaches perfection, at least, exhibition perfection.

That Mr. Kieley has done better work than he has exhibited in this collection does not change the totals any.

Here and there are found prints that have merit, or had before the accentuating brush destroyed what grace, modeling and that gradation of shades the light of heaven and the sensitive silver had contributed to the negative. But, on the whole, the brush work prints shown in this exhibition are valuable, as they act as a "solemn warning," and, perhaps, that is the best use some things can be put to after all.

AN AMUSING POSTAL USED AS AN ADVANCE CARD BY WILLIE WOLF, REPRESENTING HIRSCH & KAISER.

Mr. Berg is not entirely free from the use of the brush, but he uses it in his backgrounds, if at all, and that sparingly, and his work is charming. I say this advisedly, for he makes pictures one can see and yet preserves the mystery and leaves scope for the imagination.

Here we find a man who so respects his art that he will not violate one of its canons or traditions, but seeks to "draw the thing as he sees it for the good of things as they are."

His "Carmen" is, perhaps, his best, for it is not only intensely dramatic in pose but runs the entire gamut of technique and skillful handling in development and printing. (Yes, I know there is brush work here, but it is to secure tone and quality and not to correct bad lighting, posing or draping.)

The trend of Mr. Berg's work seems to be largely in the direction of decorative or mural composition, though this is only one phase of his many conceptions. His nude work shown in a single statue, "Evening," is what it suggests, and is as true art as Bogerson's. He has approached it with reverence and a true artist's endeavor, and in this, the greatest and at once the most difficult feature in pictorial photography, he has won success.

It is well for most not even to try to give expression to the undraped human figure. He is a master of his art who succeeds. It is well to study Mr. Berg's work from the selection of his model, the evident conception of the picture before his work was commenced. His handling of the harmonies found in true color and in form, and through even to the mounting of his prints, mounting that is simple enough, is near to perfection.

All steps in his work are carefully studied and indicate beyond these a rare subjection of all inclination to overdo, as well as an acknowledgment of limitations of the art of photographic picture making.

All dealers should send to Messrs. F. L. Schafuss & Co., 94 Reade Street, New York, for their catalogue of albums, containing descriptions of different lines of "Star Plain Leaf," "Star Squeegee," "Star Photone" and "Deckle Photone" albums for unmounted photographs. The leaves in these albums are made of "Pure-est" paper, which does not discolor the photographs. The covers on the "Star Plain Leaf" styles are flexible and free from blistering. In the "Star Squeegee" albums a fine lithographic frame around each opening adds greatly to the effectiveness of the photograph when mounted. The new "Star Photone" paper series of albums are very smart.

WITH THE AMATEUR.

A DEPARTMENT FOR THE BEGINNER WITH A FEW SUGGESTIONS FOR THE STUDENT.

CONDUCTED BY FATETTE J. CLUTE.

HAVING A SPECIALTY

An amateur friend, over in Alameda, told me his tale of woe one day last fall. I listened very attentively. I will not repeat his story here, but his case is so typical that the incident is worth recording. He bought one of the smaller sized cameras and as long as the task of mastering the details of photography kept up his enthusiasm he was all right. Once this was fairly accomplished he lost interest. He found he had only a stack of 4 x 5 prints, random snapshots, of little interest and less merit, to show for all his time, trouble and expense. He did not put it just that way, but I understood where the trouble lay. I asked him if he would not make me a set of flower pictures, just single blossoms or sprays with a few leaves, of such subjects as he could get easily.

I pretended that I wanted them very much and promised to send him over an annual containing an article on the subject. Later I sent him Professor Lange's series of flower articles which ran last fall in CAMERA CRAFT, and he now has as fine a collection of negatives of this class as one could wish for. His interest in photography is as strong as ever, is constantly adding to or improving his set of negatives, and has made himself as great a pest to the near-by florists as all the insects put together.

PORTRAITS IN A PARLOR

A feminine subscriber sends a portrait taken in her parlor, with a carefully drawn diagram of the room, showing the position of the camera, sitter, background and side screen, as she uses them, very clearly. She has evidently read some of the numerous articles published on the subject, as the arrangement is fairly good with the exception of the reflector or side screen. If two facts are borne in mind the manipulation of this useful accessory can be made much more simple and effective. The use of the side screen is mainly to soften the abrupt transition from high light to deep shadow which will be seen down the center of a face lighted from one side. When the reflector is placed so far back, or in such a position as to miss this part of the face, the result is even worse; this strip of dark shadow in the center of the face now ends abruptly in two high lights, one on each side, giving a peculiar flattened appearance to the sides of the head. If you stand at a window and face a mirror where you can see this hard line where the light and shadow sides of the face meet, the position of the mirror and its angle will be about the correct one for their side screen. This is simply a demonstration of the fact that a flat surface — our mirror, or later our side screen in this case — will reflect light thrown upon it at an angle to its surface of the same degree as that at which it is received.

INTENSIFYING OVER-REDUCED NEGATIVES

A correspondent wishes to know if there is any risk attending the intensification of negatives that have been reduced a little too far with persulphate of ammonia. To test the matter I took two waste negatives and reduced them in a three per cent solution of persulphate of ammonia, rinsed them under the tap, placed them in a weak solution of sulphite of soda for a few minutes and then gave them a good wash. One was intensified in the regular way, with mercuric-chloride followed by ammonia, and the other was treated with Agfa intensifier. Excepting the fact that the first negative was made a little too strong, there is little choice between the results. The Agfa seems to be the most desirable agent to employ, as its results are more under control.

SMOKE AS A BACKGROUND

A paragraph is now going the rounds of the "scissors" journals to the effect that a cloud of cigarette smoke about a foot in front of the lens will give soft negatives of unevenly lighted subjects. I hope someone will discover that cigar smoke is equally effective before we all become cigarette fiends; and, even then, what will our women photographers do? Cigarette smokers may be the only kind of escorts in demand ere long. What I am working up to is this: The paragraph put me in mind of a neat trick I once saw an old professional

perform. He was commissioned to photograph a very handsome flowering shrub in a back garden, and from the most desirable point of view a dilapidated shed, with the remnants of a few old wheelbarrows, chicken coops and the like, came in as a background. He quietly secured an armful of damp, mouldy straw from the stable and proceeded to burn it between his subject and the undesirable background. When the smoke was to his liking he made the exposure, and his result was a revelation to me. A better background — a quiet gray, broken up just enough to give good relief — could not have been painted to order. Try it some time.

QUERIES FOR THIS DEPARTMENT

A couple of letters received recently show that at least a few of my readers are in doubt as to the propriety of sending their photographic inquiries to this department. Fearing there may be others equally uncertain, I wish to once more state that this department is first and foremost a bureau of information. Any letters of inquiry addressed to me will receive prompt attention. There is no danger of your overdoing the matter, as a stenographer is always at my disposal. I am not a photographic encyclopædia by any means, but I have facilities for finding out things that are enjoyed by but few of my readers. Your questions, instead of being a burden, serve as texts, as it were, for these monthly talks, making them easier for me as well as giving me pleasure in finding that my efforts to help you are appreciated.

TRY TO BE THOROUGH

Take the average amateur in San Francisco and you will find that he has a good negative of the City Hall but none of the Ferry building. He has one of the Conservatory in the Park but none of the Casino. He has a negative of the Oakland ferry, but never took one of the Stockton boat. He has the old whalers in the estuary, but not the hay schooners in the creek, and so his collection goes. This fact was brought very forcibly to me last week through trying to help the representative of a large Eastern publication get together a few sets of prints. He would have paid a good price and given full credit for any sort of a collection that could have been used as a complete set. Only one was found, and that was not as complete as it might have been. It comprised nearly everything on the water front, from sunrise at Mission Rock to sunset at the Cliff House, and although they were all modest 5x7 prints, sixteen, I believe, in all, they were of more value than a hundred unconnected views would have been. Try some such series for your summer's work. If in the country, take farm scenes; make as complete a set as you possibly can, including

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NUTS.

everything from spring plowing to chopping wood. If in a town, hunt out all the odd characters and make portraits of them; anything, in fact, that interests you and that will make a set of pictures bearing some relation to each other. Your results at the end of the season will please you as no other season's work has done since you first became a victim of photography.

DANGER IN RUBBER SLIDES

One of my amateur friends came to me the other day with a new species of markings on his plate. It was a mystery. I could not explain it in any way, and gave it up to the extent of asking him to leave the negative with me for a few days. It was not the fault of the emulsion, neither was it caused by a leak in the holder, and there was no indication of its being caused by unequal action of the developer or the chemicals composing it. It puzzled me for several days. Finally I remembered having read of someone having caused electrical action by withdrawing a rubber slide very quickly from a plate-holder. I blew out my light, after having obtained a couple of different forms of holders using rubber slides, and made a few experiments. I found I could make quite a bright spark with one of them by sliding it in and out a few times and then withdrawing it suddenly. Just the kind of a motion one will make when one of his slides works a little hard. Take your own into a darkroom with a dry, warm atmosphere and try it.

USING A BURNISHER

A Montana reader writes to inquire how to use a burnisher "the usual way." She has had one presented to her; the directions give information in detail as to the heating of the roll, and then says "run your prints through in the usual way." The roll should be heated evenly at both ends to the "sizzing" point, or very nearly so, and kept there. If too hot, the prints are reddened and even the film melted. If too cold, it fails to impart a gloss. All suspicion of dirt or dampness on the rolls must be carefully removed. The prints should be bone dry, and before being burnished be lubricated by rubbing a soft pad on a cake of Castile soap and passing it several times over the face of the print. This heightens the gloss and prevents the prints from sticking between the rollers. Adjust the rollers to the thickness of the mounts and run each print through, face downward, six or seven times, bending it up slightly each time as it passes through, in order to shape it to the slight backward curl usually given rolled prints.

VIGNETTING OF BROMIDE PRINTS

To vignette bromide prints made by contact is not so very difficult if one goes about it in the right way. Take the cover of an old plate-box and cut a hole in it somewhat smaller than the desired vignette. Use another section of the box, with a larger hole cut in it, as a support for a sheet of tissue paper. These two are to be glued together in such a way that the hole comes an inch or more above the negative and the tissue paper an inch above that when they are laid upon the printing frame. Print far enough from the light to make an exposure of at least fifteen or twenty seconds necessary, and keep the frame moving from side to side and up and down continually while printing.

COLOR SCREEN WITH ISO. PLATES

A correspondent wishes to know if he can use Iso. plates to advantage without a color screen. He certainly can. The function of the color screen is to cut off a portion of the blue and violet rays, which, ordinarily, have too pronounced action upon the plate. In most landscape work it is only occasionally advisable to sacrifice any of these rays of light. It is the blues and violets that give us the atmospheric effect. When it is desired to render the distance as distinct as possible a color screen can be used to advantage. A color-sensitive plate differs only from the ordinary in being more sensitive to those colors which, though visually the most brilliant, have the least effect upon the ordinary plate. Under certain conditions of light—when the yellow rays predominate, as they sometimes do toward evening—the employment of a color screen would be superfluous, if not a positive disadvantage.

Hirsch & Kaiser's spring announcement is the most gorgeous piece of literature ever distributed by a local firm.

The Jackson Lens Shade Company, Jackson, Mich., has just placed on the market one of the most useful inventions of the year. It is a lens shade which can be adapted to any of the small cameras. Send for a circular.

L. E. Foster, representing the Gundlach Optical Company, spent several days in San Francisco last month.

IN PROFESSIONAL FIELDS.

AN IDEA OR TWO EACH MONTH.

CONDUCTED BY O. V. LANGE

THE THERMOMETER IN THE DARKROOM

In imagination I can hear some one say who reads the heading, "Oh, what is the use of being so fussy about such a little thing?" Or, "I don't bother with such trifles." Well, you may fancy that it is a trifle, but if you stop to think and observe it will soon be seen that good work, in any line of art or science, can only be produced by taking infinite pains and carefully attending to trifles. We have just emerged from the cold and damp days of winter; the warmth and color of spring is with us, while the hot and dry summer will soon begin to affect the photographer, and more especially his chemicals.

Here in California it must be admitted that we are not harassed by such extreme and violent changes of temperature as photographers are in the East and Europe. Still, during the last three or four weeks, the mercury column has been fluctuating up and down the scale rather energetically. It is when these conditions prevail that this useful little instrument comes in handy, and many a negative or film that developed either too slow or too quick, and finished too weak or too dense, might have been perfect if the darkroom, plates and chemicals had been of an even normal temperature.

In the conditions cited probably many reasons for failure were thought of. First, the plates were blamed, the emulsion was too thin, then the developer, the platemakers not having printed a formula to suit their plates, the chemicals were not pure—any excuse but the right one.

It is a well-known fact that all chemicals act more energetically at a high temperature, that is, above 75° or 85°, and also give a more dense deposit with a standard time and developer, while the converse takes place at a low temperature, say below 50° or 40° Fahrenheit. These are extreme instances, yet I have, during a day's work on flower studies, been compelled to reduce the time of exposure and strength of chemicals to suit the difference between the cool, early morning and the warm afternoon hours, for we often have a change of from 15° to 20° in a day.

The normal temperature in all scientific manipulations is 60° Fahrenheit, or 15° on the centigrade scale. Where the temperature is only 10° below or 10° above the normal it is more practical to strengthen or reduce the chemicals to suit the change, but on cold days, say 35° or 40°, it is best to warm everything to the normal, or a little above. When it is above 85° to 95° ice is indispensable to make the temperature normal so as to obtain satisfactory chemical effects.

EXAMINE YOUR HYDROMETERS

The other day I had occasion to test the strength of a paper hypo bath with the hydrometer, and was astonished to find that it registered much weaker than I had a right to expect, according to the amount of salts which had been dissolved. At first I thought an error in weighing had been committed, but this was soon proven not to be the case. For a time the cause of this discrepancy was quite puzzling, until finally the hydrometer was suspected.

To find out if it was trifling with the truth, it was immersed in pure distilled water, the temperature at sixty degrees, then the scale, instead of registering at the zero mark for water, sank way below the surface, thus proving that it had, in the course of time, slipped down the tube. This was caused probably by its standing on the bulb end upon a shelf, the continuous vibration making the paper tube containing the printed scale gravitate towards the lower end.

At first sight it seemed to be completely ruined, as the glass tube is hermetically sealed, and there was no way of getting in to pull the scale in place. Thinking the matter over I came to the conclusion that by inverting the instrument and gently tapping it upon the sealed end it could be made to slide back into place. After tapping for a while it could be seen to gradually get into its original position. It was placed from time to time in the distilled water until the zero mark coincided with the water line. To avoid the same trouble again I now placed the instrument in a horizontal, instead of a vertical, position.

NEWS OF CLUBDOM.

CAMERA CRAFT IS THE OFFICIAL ORGAN OF THE CALIFORNIA CAMERA CLUB, THE SAN DIEGO CAMERA CLUB, AND THE PENDLETON (ORE.) CAMERA CLUB.

CALIFORNIA CAMERA CLUB.

The Nominating Committee made its report at the regular monthly meeting of the club on March 5th, the following ticket being presented: President, James W. Erwin; First Vice-President, W. B. Webster; Second Vice-President, H. B. Hosmer; Secretary, W. E. Palmer; Corresponding Secretary, Carl E. Ackerman; Treasurer, Dr. E. G. Eisen; Librarian, Dr. H. D'Arcy Power; Board of Directors — Oscar Maurer, John J. Lerman, Chas. A. Goe, H. T. Heming. Dr. H. D'Arcy Power of the CAMERA CRAFT staff gave a demonstration on "Printing Processes."

The Saturday Afternoon Tea is now a regular institution of the club and is undoubtedly one of the most popular innovations of the year. The following ladies were in charge of the first Tea: Mrs. W. E. Palmer, Mrs. W. B. Webster, Mrs. C. E. Baldwin, Mrs. M. P. Chilson, Miss L. Brunner, Miss K. G. Lyons, Miss Marjorie Erwin, Miss Ida B. French, Miss L. V. Morgan.

LOS ANGELES CAMERA CLUB.

The regular meeting of the Los Angeles Camera Club, on the evening of March 8th, was well attended. The auditorium was filled at an early hour and many of the members were obliged to stand during the greater part of the program. The lecture of the evening was delivered by Mr. S. McLaughlin, one of the oldest and most enthusiastic members of the club. The subject of the lecture was "Photography in Mechanical Processes." Mr. McLaughlin was one of the pioneers in the art of photography, having been for many years the official photographer for the Canadian Government, and the club is to be congratulated on having so noted a photographer on its membership roll.

Mr. Will E. Chapin, the *Times* artist, gave a ten-minute talk on "The Camera and the Newspaper." The talk, although short, was very instructive and contained many practical hints to those who are engaged in making photographs for newspaper illustration.

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